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INHERITING THE EARTH



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INHERITING THE EARTH

OR

THE GEOGRAPHICAL FACTOR IN NATIONAL DEVELOPMENT

BY

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PREFACE

In brief, the theme of these chapters is that *Place* constitutes the essential and significant basis of all human association.

Although the potency of environment in shaping the affairs of men has long been urged by geographers, and while the truth of this contention has won some recognition from students of history, sociology, and economics, yet the dominance of environmental control has not been generally accepted as an adequate foundation for a complete theory of history.

The author is content to accept any denial of the ultimate importance of geography in shaping the past of mankind. This book has been written, not so much to show that human organization and development *have* been determined by geographic conditions, as to insist that in the future they *should* be. Nor does the author even hope that these pages will bring about any marked changes in the policies of statesmen. But this collection and restatement of the geographic factors involved in the rational occupation of the earth by man should prove useful if it help only a little to focus attention on the importance of home, and on the need for effective utilization of environmental resources; in the life of peoples and the welfare of nations.

Historians, while generally keen to deny that environment plays any dominant rôle in ordering the succession of

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human events, nevertheless, as a rule, have tacitly admitted the underlying truth of such a dictum by entitling their studies histories of France, of Europe, of Virginia, and so on. While it has been said that history is written without intelligence, it might much more truly be asserted that the human failures and futilities of which the historian, perforce, makes laborious note do truly indicate man's record of persistent stupidity and obstinacy. The natural universe functions perfectly. In it complete adjustment and co-ordination prevail down to the smallest organism; history in sum is the record of Man, endowed with free will, refusing at first to conform to his environment and, hence, being buffeted about by Nature until he comes to terms with her.

The response to environment has varied in kind with time and place, and several varieties of harmonious adjustment may be possible at one place, but permanency of communal life is possible only on the basis of some successful adaptation of life to place. The real fault of historians is, not that they fail to realize that the regions of the earth are the stage of man's activities, but in that they insist, once the stage is provided, that the actors can put on any play they see fit. Not so. If the theatrical stage is too large or too small, if needful scenery is lacking, if the lighting is not of the right kind, certain effects can not be attained. Plays varied in type may, perhaps, be equally well enacted on the same stage with the same appurtenances; that is, on the world stage different human societies successively introduced to a like environment will develop different, yet, in each case, admirable results. To postulate more than this is to make the historical case as

weak as that of the anthropogeographer who finds an environmental explanation for each and every individual human trait.

The peace, prosperity, and progress of all the world, and the spread of civilization to all its parts, will be most rapidly and surely attained when once the idea has become generally accepted that all men will profit most by permitting and encouraging everywhere the most effective utilization of natural resources. Only by that means can the maximum production of all commodities be secured. This may seem a very materialistic concept of human destiny, but it should not be forgotten that only after man's needs are supplied can he give time and energy to study and contemplation. The future of nations is assured when they have learned to inherit the earth and the fulness thereof.

On such a basis it might appear that the field of this book lies in the domain of economics rather than in that of geography. The respective fields of the two sciences are, however, made clearly distinct when economics is defined as the study of man earning a living, and geography as the study of man earning a living at a certain place; in other words, geography is the regional application of the principles and statistics of economic and other science.

President Nevin M. Fenneman of the Association of American Geographers was able to devise a very happy, graphic representation of the relation of regional geography to other fields of knowledge; it is his diagram, with some modifications, that appears on the title-page of this volume. The all-surrounding, pervasive, and inter-

acting elements that constitute the *milieu* [1] or environment are analyzed by special sciences, and the appropriate facts and principles thus singled out are synthetized and descriptively applied by geography with reference to areas and regions. Fundamentally, nations are territorial societies, whether or not organized into states, and hence regional geography serves its essential purpose in describing, explaining, and rationalizing the relation of human activity to place.

To sum up, then, human society, whether considered in national units or with reference to the self-expression of the individual, is most intimately and immediately, if not exclusively, affected by place. Accordingly, if it is desired to understand fully either the nature or the future of nations, or how the earth and its resources, as the legacy of man, shall be inherited most richly, it is necessary to make the background, which is comprised of regional geography, the initial field of study and also to realize this background fully before attempting formulations of any kind.

Barbados, B. W. I., 20 January, 1922.

[1] A. H. Koller, "The Theory of Environment," Menasha, Wis., 1918.

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INHERITING THE EARTH



INHERITING THE EARTH
OR
THE GEOGRAPHICAL FACTOR IN NATIONAL DEVELOPMENT

CHAPTER I

THE DISSIMILARITY OF NATIONS

NATIONS are popularly conceived to be essentially like units, to constitute different items, merely, of one general class. The first resort of the man in the street, in giving expression to his pride of nationality, is to make comparisons to the disparagement of foreign nations. Nor is the average man alone in this practice. The journalists, the political and the historical writers share with him the conception of the categorical unity of nations and are prone to indulge in the like invidious comparisons. But the implication of likeness between nations, on which these comparisons are all based, is seldom, if ever, abstractly considered by those who use them most freely in their arguments. It is simply assumed that nations differ, one from another, only relatively, and in respect of attributes possessed by all in common; thus, as to size, systems of government, and the particular characteristics of the groups of peoples comprising the several nationalities. Coupled with this idea of the similarity of nations there is

also entertained, quite as generally, a conviction that there exists a single factor that establishes and defines the coherence and homogeneity of each nation, and which, by mutation, serves also as the criterion for differentiating between nations. While opinions will vary as to the nature of this factor, it would probably be asserted most frequently that possession of a common language and literature sufficiently marks and identifies a nationality.

The propensity to regard nations as comparable units is warranted, for nations are items of the same kind, but it is also true that the factor on which national similarity is actually based is not at all appreciated. It is necessary, hence, to enlarge first on the dissimilarities of nations with the purpose of making clear that the popular assumption of their comparable likenesses rests on misconceptions in regard to the uniform recurrence of the national attributes that are generally made to serve as distinguishing qualities.

A chief difficulty in arriving at a rational understanding of nations is the fact that no distinction is usually made between state and nation, as a preface to thought and discussion. While the word state is not commonly applied as a synonym for nation, nation is often used when the reference actually is to a state. A state may be defined as a system of government in force throughout a given region, or regions, of the earth's land surface, maintained or endured by the groups of people that occupy those territories; and this system constitutes the means by which the collective will of the peoples concerned, or, usually, of the dominant group among them, is expressed to the governmental régimes of other states. Nations, on the

other hand, are groups of people bound together by some condition that makes for like-mindedness in each particular group and that develops, incidentally, in each group certain characteristics, readily discernible by members of other groups, that serve as criteria for distinguishing between nationalities.

Presumably it is because states—that is, systems of government—are considered identical and coincident with nations (and hence are expressive of the like-mindedness, within the group, that characterizes nations) that the idea of similarity of nations has become rooted in popular thought. The basis for such a linking together of nation and state is evident in the term, sovereign state. As indicated by this expression, states are supreme in governing the relations of the individual citizen to his neighbours, and also those he has with residents of foreign states. If the citizen goes abroad he finds that he must order his life according to the rule of the state he visits. Such regulation is a very tangible and ever-present phenomenon, and it is, therefore, not surprising that the individual should see in its general and potent enforcement the unifying factor of states, and hence of nations.

Despite the fact that states, in that they have this common characteristic of acting as the agent of unit groups in expressing the will of an organization to the individual and to other states, are much more obviously comparable units than are nations, it should be understood that states, too, have elements of dissimilarity which make them distinctly unlike each other as representatives of the like-mindedness within a group that is indicative of nationality. A state may be created or destroyed, extended or con-

tracted, and such changes have often been made rather arbitrarily at the will of a single man or a small group of men. Thus the state is an ephemeral institution in comparison with nationality; which is much more enduring, and is, therefore, a persistent and pervasive factor in the ordering of human affairs. Nationality may, and does, survive many changes of state. Again, the nationality bound together in a state by the exercise of autocratic power can not give expression to national characteristics and tendencies; can not, therefore, be realized as an entity by other peoples in the same degree, and as completely, as those nationalities that have a democratic government and representative institutions.

It may be that the prevailing sense of equal significance of states, despite the great diversity of their organization, is due to the fact that between the extremes of autocracy and democracy that exist there may also be found nearly all intermediate gradations of constitutional right. Accordingly, while the divergence exhibited by despotism and tentative socialism is recognized, the normal mental attitude is to lump the varying rights to life, liberty, and the pursuit of happiness, possessed by the inhabitants of different states, into an average whole of tolerable existence equally applicable to all. Word of conditions notably worse than such an average standard of tolerable existence arouses general indignation and a popular world demand for amelioration of the oppression. The enjoyment of undue licence, on the other hand, is a signal for apprehension as to the stability of the state where the innovations appear. Thus excesses at either end of the scale serve to establish more firmly, though erroneously, the

conception of a mean of all states from which these extremes are sporadic departures.

A further reason for considering states unlike, as manifestations of nationality, is found in the actual human make-up of the population of states. Ideally there should exist the combination of one nation, one state. Solidarity of that degree is suggested by the use of the term, nation-state, with the implication that the relation is the common and expectable one. In reality it is the general absence of complete co-ordination between people, government, and lands controlled that, above all, interposes against any acceptance of the idea of the like composition of states. For while nation-state is a frequently used, current term, so also are "subject peoples" and "submerged nationality." There are states that are strongly coherent, as governmental units, because of the coincidence of a unit nationality and territory controlled, as, for example, France; while Austria-Hungary was perhaps the most notorious example of the maintenance of a state, within the territorial confines of which the conflict of a great variety of nationalities persisted. In contrast with Austria-Hungary there is afforded the peculiar human composition of Switzerland, a nation for which the state exists primarily as an expression of determined like-mindedness; though Switzerland's population is comprised of nearly equally potent, but quite different, human groups, which, because of the several languages they use, are said to be of French, Italian, and German nationality.

In these three examples nearly all possible contradictions to any preconception of unity in the human composition of states seem to be summed up. States are not

invariably, or even usually, the expression of single nationalities; varied and conflicting nationalities may be bound up in a single state; what seem to be different nationalities may, by the establishment of a state, give notice of their single nationality.

On the basis of the evidence cited it would appear that the establishment of states, and the development of nations as well, has, in the past, been largely fortuitous; or, in any event, not governed by any single rule. The inextricable confusion of the literature wherein group units of territorial control and of national existence are discussed is probably a reflection of this diversity of origin, and the failure of writers, generally, to differentiate between the two. But the principle of "the self-determination of peoples," on which attention has been focussed by the events of the World War, and by its enunciation in so concise a phrase, promises, if applied, in the future to bring about a more general co-ordination of people, place, and state; hence to establish a real unity among nations in the sense that these are, popularly, conceived already to exist.

By "self-determination" of nations is meant that each of the nationalities of the earth shall dominate in the territory which it occupies, and, presumably also, to the exclusion of any interest in the state by peoples of other nationalities; except as alien individuals may attach themselves to a given group of their own free will. The *self* affixture to the phrase is its pertinent feature, for by inclusion of this it is insisted that the peoples themselves be conscious of their like-mindedness as a group; hence of the basis of their claim to nationality. Accordingly, it is of imme-

diate moment to inquire into the manner in which nations may find themselves; that is, to determine whether there is some one particular test, applicable to all, by which one nation may be distinguished from another.

Let it be admitted that states are dissimilar, not comparable units, that there is no direct correlation between nations and states as at present constituted, and that where there is a coincidence of state and unit nationality, the state is the creation of the nationality and not the nationality of the state; it yet remains that the régime of most states is the organization of a dominant nationality, whether or not other nationalities are included within the territorial confines over which that régime extends. It may also be added, as a corollary, that, given sufficient time and favourable conditions, it is often possible for a dominant nationality to assimilate alien human groups over which its rule has been extended. If then, there is found to be present in the dominating groups of modern states some particular kind of characteristic or attribute, possessed by all and transmissible to others, which, by its non-gradational change, marks off nationality from nationality, there will be available at once both the test that nations must use for their self-determination and the proof that nations are essentially similar units and that states, as the creations of dominant nationalities, have, also, fundamentally, this variance of a common factor as the basis for their separate existence, and are not, therefore, as has been contended, unclassifiable in a single category.

As has already been suggested, there is a tacit assumption of the existence of such a determining and distinguishing attribute on which the popular concept of the

unity of nations, and, if undifferentiated from nations, that also of states, is in part based. If, however, the question is raised as to what this attribute is, opinion will be found to vary greatly according to authority and circumstance. The possibilities most often cited, in something of their order of importance, are, race, language, religion, system of government, adherence to a hereditary or selected leader. National aspirations are considered to have been realized when unity has been achieved in one, or perhaps several, of these determinants. It will be significant, therefore, to inquire as to the degree in which the test this affords holds good in the existing marshalling of the world's peoples, not only as marked out by territorial confines or governmental régime, but also as applied to groups now unable to achieve those expressions of nationality.

There can be no question but that the most firmly established division of human beings into separate classes is that based on race, as determined by the colour of the skin. There is a natural antipathy between white, yellow, brown, red, and black races. This intolerance, apparently, is based on a psychological realization of unlikeness; and this unlikeness had its origin in the long prehistoric development of each race in geographical isolation. In ancient historic times there was probably little opportunity for the several varieties of the human species, as distinguished by colour of the skin, to come in contact. The establishment of intercourse between all the world has been coincident in time with the rise of the white race to world ascendency. While representatives of all races, in groups and as individuals, are now scattered over wide

regions of the earth and are often closely associated, the general result of the ascendency of the white race, whose achievements have made this intermingling possible, or, indeed, brought it about, has been that the white race holds itself (in a much greater degree than that due to normal racial antagonism) aloof from all the other races. On the other hand, this more marked aversion, on the part of the white race, to intermingling with any of the other races, is offset by a certain avidity for union with it exhibited by individuals, at least, of the other races. These reactions, accordingly, are to be regarded as a social phenomenon arising from the modern prestige of the white race, and it is probable that similar relations of superior and inferior race have occurred on a more limited scale in the past history of mankind. Racial repugnance in general, therefore, may be the result of the accumulated vestigial effects of such contacts. In view of this deep-rootedness and apparently very ancient origin of racial antipathies, it would also be expectable to find that national groups have been, and are, quite universally based primarily on kinship of race.

In a large measure this is true, but there are exceptions. Thus the Japanese, perhaps as homogeneous a national group as any one that could be cited, include in their number a remnant of Ainus, a people of Caucasian type, and perhaps the aboriginal race of the main island of Hondo. This remnant, interestingly enough, is held to be ancestral to the "fine" type of Japanese aristocracy; that is, of the dominant element among the Japanese. In the south of Japan there is found, on the other hand, a Malay admixture, a relatively recent addition to the pre-

vailing Mongol stock. An inquiry made in 815 A.D., by the Japanese Government, showed the existence in the empire at that time of three great races or stocks, Kobetsu, Shinbetsu, and Banbetsu; and, according to an analysis by a Japanese student in the present day, these original three great stocks may be further distinctly differentiated into what he refers to as "many races." While the classification this Japanese makes is not based on difference in pigmentation, it is nevertheless significant as an indication that the Japanese do not regard themselves as a racially homogeneous group; that their nationality does not depend on racial unity as a basic characteristic.

A more recent amalgamation than that of the Japanese of distinctly different races into a well-defined national unit is encountered in the Brazilian people. The Portuguese planters in Brazil seem to have had sexual intercourse, from the first, with the African female slaves whom they imported, much more generally than has obtained where similar economic relations between white and black have existed elsewhere. In consequence of this racial intermixture a large population of *metis,* or half-breeds, developed in Brazil at a very early date. Marriages between these *metis* and whites do not meet with disdain today in even the highest social circles of the country. The *metis* are fully as patriotic as any class of Brazilians, have fought heroically in the Brazilian armies, and it was with their support that the Brazilian republic was erected on the ruins of the empire. As a result, many able mulattoes gained high political office under the new régime and they continue to hold similar positions. White, black, and mixed bloods of the two races compose the Brazilian

nation. Theodore Roosevelt [1] was much impressed by this relationship of races as he found it in Brazil, and the idea that there prevailed, that in it was to be found the way to continued national unity. Essentially the same conditions obtain in the island colonies of the French West Indies, and it is significant that the black people and *gens de couleur* of Martinique and Guadeloupe are much more self-respecting and have made greater progress than have the negroes and half-breeds resident in the other islands of the Antilles.

In direct contrast with these conditions are those that prevail in the United States. Except for clandestine and illicit intercourse on part of male whites with negro females in the South, and more open unions, occasionally, of the same kind in the North, in city slums, the two races have, in the United States, been kept distinctly apart, both sexually and socially. Despite this social handicap, which extends with almost equal effectiveness to political activity, there can be no question but that the negro is thoroughly loyal to his American nationality; in fact, knows no other. On the battlefields of France the negroes fought with so much devotion as to inspire a Southern-born press correspondent, despite his prejudices, to write that after the war "n-i-g-g-e-r will merely be another way of spelling the word American." [2] It has even been noted that American-negro missionaries in Africa are regarded by their race fellows as Americans, as aliens from the point of view of the native population.

[1] "Brazil and the Negro," *Outlook*, 1914, Vol. 106, pp. 409-411.

[2] Irvin S. Cobb, "Young Black Joes," *Saturday Evening Post*, p. 77. Philadelphia, Aug. 24, 1918.

Thus, whether permitted, and encouraged even, to intermarry, or disallowed all social contact, it would seem that the two races of man farthest apart in colour of skin can, nevertheless, entertain a consciousness of like nationality where numbers of each group exist together.

In addition to the white-negro cross, there occurs also in Brazil a population group that has resulted from intermarriage of the Portuguese and the Indian aborigines, the "Paulistas" of São Paulo. These Paulistas have long enjoyed the reputation of being the most vigorous and enterprising element of the communities in which they live. In Mexico, similarly, unions of the Spanish invaders with the aborigines have in the course of several centuries brought about the development of the typical *mestizo* population, sometimes spoken of deliberately as "the Mexicans." It is argued, in fact, that the *mestizo* type is established as a stable and distinct stock which would not revert or disappear with the infusion of fresh European blood. The population of Mexico includes also a pure Spanish-Caucasian strain, a considerable element of negroes, and a large percentage of pure Indian stock. Further, the white and the negro and the negro and the Indian have intermarried to such an extent that it is probable that many *mestizos* are really descendants of all three races. Despite this great intermixture, and despite the warring factions that have kept Mexico in the throes of revolutionary war for a number of years, recently, it can not be denied that this racially heterogeneous population is possessed of a distinctly nationalistic spirit. Hence any attempt by a foreign nation to force a settlement of the domestic difficulties of Mexico, as, for example,

American intervention, would result in uniting all the Mexican factions to resist the alien intrusion, however benevolent its intention.

The French-Canadian *voyageurs* are to a notable extent the product of unions between French whites and Algonquin Indians, and whatever religious and political differences exist between this element and the British-descended peoples of Canada they are not such as involve the question of loyalty to their common Canadian nationality.

Finally, perhaps the most striking, if not the most significant, transgression of racial lines by nationality is presented by the Jews. Than this people there are none that so characteristically preserve the mark of nationality (if not anthropologically at least by facial expression [1]) in the individual. Hence it is of great interest to note that the Jews, though mainly a white people, have a colour-fringe—black, brown, and yellow. "There are the Beni-Israel of India, the Falashas of Abyssinia, the disappearing Chinese colony of Kai-Fung-Foo, the Judeos of Loango, the black Jews of Cochin, the negro Jews of Fernando Po, Jamaica, and Surinam." [2]

But colour of skin is not the only, and perhaps not the best, criterion of race. With reference to the white peoples of Europe at least, ethnologists have fixed on head form as the most permanent and distinct and at the same time characteristic racial difference. Using this as a basis, and associating with it other physical traits, three separate racial types may be identified in European popu-

[1] *Jewish Encyclopedia*, Article on Types, New York, 1905.

[2] I. Zangwill, in "Inter-Racial Problems," p. 276, G. Spiller, ed., London and Boston, 1911.

lations. The Mediterranean race has long heads, short stature, and dark skin colour. The Alpine race has round heads, stocky stature, and is intermediate in pigmentation between brunette and blonde. The Nordic race is long-headed, tall, and fair.

It is immediately evident that there is no correspondence between the distribution of these three racial types and the various developments of nationality in Europe. Lack of coincidence between nationality and unit racial character might, perhaps, be expected, but the fact that practically every one of the nationalities of Europe presents a different combination of racial make-up is quite significant as an indication that division between long heads and broad heads is not the basis of national conciousness in Europe.

Great Britain has an underlying stratum of the Mediterranean race, has absorbed some Alpine stock (lacking in Ireland), but the population today is predominantly Nordic. In France, also, all three races are represented, but with the difference that their distribution is distinctly regional and topographic. In the south of France the Mediterranean race predominates; the highland regions, that extend from the southeast toward the northwest across central France, are occupied by Alpine people; while the lowland plain of the north and the valley passages through the hills are in the possession of the Nordic race.

Italy has Alpine stock in her northern territory, Mediterranean at the southern end of the peninsula; the two blending and mixing in the central sections. The Dutch are preponderatingly Nordic; the Belgians are sharply divided into Flemish-Nordics and Alpine-

Walloons. The Spanish and Portuguese are racially the most homogeneous of the European nationalities consisting altogether of Mediterranean stock; though Austria, Hungary, and European Russia (excluding Finland) are perhaps as uniformly peopled by the Alpine race.

Similarly the headquarters of the Nordic race is found in Scandinavia; that is, in Norway, Sweden, and Denmark. The northwest of Germany is Nordic, while the southern uplands have a typically Alpine population. The ancient Greeks were long-headed Mediterraneans; later invasion of Alpine peoples has made them more round-headed and has developed an apparently homogeneous mixture of the two races as represented by the modern Greeks. Of the other Balkan peoples the Bulgarians and Rumanians are least round-headed, and both alternatives, that their long-headedness is due to an underlying remnant of the Nordic race and that it is due to a basic stratum of the Mediterranean race, have been urged.

Although the above summary is very incomplete it nevertheless appears that where nationality is most diverse race may be quite uniform; again that nationality and race may coincide, but that it is difficult to find a clear case where diversity of race has been prejudicial to the evolution of national solidarity.

There are, then, various exceptions to the general rule of racial unity in the constitution of nations; and they are not that kind of exception which proves a rule. Their occurrence, on the contrary, demonstrates that nationality is not based essentially on race, that, in fact, nationality may develop from an almost indiscriminate mixture of races, as in Mexico, as in Brazil. Even if racial homo-

geneity and nationality were universal, race could not very well be made the basis for distinguishing between nations, because the majority of all nationalities would need to be included under only two of the five primary racial divisions as based on colour of the skin.

Because of these facts, appeal has been made, secondarily, to language. A common root language was at one time held to be conclusively indicative of the racial affinity of given peoples, the separate tongues serving to identify the individual groups or nationalities derived from the original race. While this idea no longer obtains it is still true that, objectively, language affords the most ready expedient for defining nations. It may be questioned, however, whether on subjective grounds such distinctions are adhered to. If peoples were now all free to group themselves anew, nationally, on the self-determination principle, there would be notable departures from the confines of identity of language.

An immediate problem in the determination of nations is presented by the Balkan groups. It is no doubt true, as Dominian [1] argues in a recent volume, that the solution of the Balkan difficulty, from the objective point of view of an international commission, would be to group these peoples on linguistic lines. Thus he says: "Whatever be the name applied to Croats, Dalmatians, Slavonians, Bosnians, or Serbs, all speak the Serbian language. All have striven for centuries to promote their individuality as a nation. To help them realize themselves as a political unit merely implies furthering the process begun by

[1] Leon Dominian, "The Frontiers of Language and Nationality in Europe," p. 191, New York, 1917.

nature." Dominian has made a careful study of the Balkan peoples, and, in this case, bringing about a coincidence of the national and linguistic boundaries may be an eminently correct elucidation. Yet who, on the other hand, would deny that the Swiss are a nation, with traditionally strong national feeling, despite the fact that 69 per cent of the population of Switzerland speaks German, 21.1 per cent French and 8 per cent Italian; and the fact that these different language units are distinctly separated territorially; the French occupying the west, the Italians the southeast, while the Germans extend across the country from the south to the north, and fill all its northeast portion. Even Dominian is obliged to confess that (p. 54, *op. cit. ante*) "Diversity of language never impaired Switzerland's existence as a sovereign nation."

During the early part of the World War a coined word, Hiddekk (or H.I.D.D.E.K.K.) made up of initial abbreviations, was current in Germany and was there interpreted: "Hauptsache ist dass die Engländer Keile kriegen." However, the German-speaking but pro-Ally Swiss neighbours of the Germans construed the same word jeeringly to signify: "Hauptsache ist dass Deutschland englishe Keile kriegt." [1]

The case of Belgium is similar. The Flemings living in the north of the country speak a language that is essentially Dutch, and are territorially separated by a clearly defined east and west line from the Walloons of the south, who speak the French tongue. This bilingualism per-

[1] G. F. Nicolai, "The Biology of War," p. 320, foot-note, New York, 1918.

sisted throughout all the time of the Roman occupation of Belgium and has continued ever since. When, according to the treaty of Vienna, Belgium and Holland together were constituted the single state of the Netherlands, and the dominant Dutch attempted to impose their language on all the Belgians, the Walloons were loud in their resentment. As a result, in 1830, the Belgians, Flemings and Walloons alike, declared in favour of independence, and were successful in resisting the forces that the Dutch sent against them. Moreover, despite the fact that a keen struggle for lingual predominance was being waged in every province of Belgium, in the years immediately preceding the World War, each faction striving continually to eliminate the study of the rival tongue in the primary schools, it can not be doubted that the Belgians acted as a united nation in resisting the German violation of their territory in 1914. Between the Flemings and the Germans there was easy intercommunication on the east frontier, yet even before the invasion it was a common saying among the Flemish peasants, when they had licked a platter clean: "At least there will be nothing left for the Prussians."

Belgium is a nation, despite the linguistic differences of its population, and, although these differences can hardly be a factor operating for Belgian national coherence, it is unlikely that a proposal to join the Flemings with the Dutch, or to annex the area and people of Walloon speech to France, would meet with favour. Like the inhabitants of the neighbouring Luxemburg, who, free from the heavy taxation that burdened the populations of their stronger

neighbours, sang "Mir welle bleiwe wat mer sin" (We wish to remain what we are) so also would the Belgians oppose any division-and-annexation settlement of their linguistic difficulty.

Canada may be cited as another example of a distinctly bilingual nation. It is worthy of note that in the English organization of Canada, in 1791, the purely French-speaking region of Quebec, or Lower Canada, was separated from the British region of Ontario, or Upper Canada; and both districts were permitted self-government; no effort was made to oust the French language or French institutions in Lower Canada. In 1867 a united Dominion of Canada was erected from the separate states, and this has persisted, with a strong national feeling, though the French language prevails as much as it ever did in the down-river provinces.

It follows that a spirit of national independence is not necessarily dependent upon the maintenance or establishment of a national language. Conversely it is shown by the history of Poland that the forcible suppression of a language for the purpose of destroying nationality is unlikely to accomplish such an end. A Polish child could not be prevented from becoming a Polish patriot by being made to learn German or Russian instead of its mother tongue. Nor was this preservation of intense national feeling among the Poles to be regarded as due only to the attempt to suppress their Polish speech. The case of the Jews is pertinent in this connection. The persistence of markedly distinctive national traits in this people is one of the extraordinary facts of history. Yet the modern

Jews have no national language; their Hebrew is a religious language, the possession of learned men. The modern Jew, scattered over all the territories of the earth, speaks a patois of German or Spanish, or else makes the language of his neighbours his own, and this latter so effectively as to have won him literary distinction in more than one language.

Only the fact of the stronger homesteading instinct of the English colonists led to the dominance of English as the language of the United States. Otherwise Spanish or French might have become established in the West and Southwest. Moreover, it was a matter of indifference to Americans, until the development of the hatred of all things German due to the war, that communities speaking languages other than English existed in their midst, except, perhaps, as the linguistic isolation of those groups was made the basis of their political exploitation by party bosses.

The examples so far cited illustrate national indifference to or independence of language. To be contrasted with them are the groups of strongly coherent peoples whose self-realization and consolidation is ascribed primarily to unity of language. The current conception, that national distinctiveness is based on linguistic difference, is founded on the existence of these unit-language groups. The Germans, British, French, and Spanish in the West, Japanese and Chinese in the East are all nationalities that would be so characterized. But even in these type examples of the language nation there is a variance of tongue. Thus in Germany, going from north to south, Low German, Middle German, and High German are spoken, and it is

said that "the Germans differ among themselves, as regards language, more than the great Slavic races." [1]

In Great Britain Celtic speech still persists in the highlands of Scotland, in the mountains of Wales, and in western Ireland. But the while Scotland and Wales were perfectly loyal there was disaffection and separatist propaganda, open revolution indeed, in Ireland; not on account of language difficulties but on account of religious, political, economic and land questions.

In France the dialectal variation of the *langue d'oïl* prevails in the north, while the *langue d'oc* is found in the south. The Castilians of Spain can not understand the Catalans as well as they can the Portuguese; and the population of Spain includes one million Basques who speak a language wholly alien to any other tongue in all Europe. Nevertheless the Spaniards are, in other characteristics, a very uniform people.

In the East, the Empire of Japan and the new Chinese Republic are generally thought of as comprising peoples completely homogeneous as to language. Actually there are practically three languages in Japan—the ordinary, the polite, and the written—which differ in a very considerable degree from one another. The ideographic writing of the Chinese, consisting of some ten thousand different signs, is of uniform significance throughout the country, but the sounds for these characters vary greatly in the different dialects that are used; though the confusion this entails is mitigated somewhat by the use of an official dialect among the educated classes.

[1] D. Folkmar, "Dictionary of Races or Peoples," p. 66, Senate Document 662, 61st Congress, third session, United States.

Religion has never acquired the vogue accorded to language as a determinant of nationality because the exceptions to religious unity in nations are more numerous than the agreements, and because religion has, perhaps, more often been effective in bringing about national disintegration than in promoting national consolidation. That religion is the immediately evident basis of the perpetuation of some nationalities, the particular example being the Jews, confirms rather a dictum of a diversity in the elements bringing about national coherence than it does any postulate that nations generally are marked out solely by unity of religious belief. Historically, religious intolerance has commonly set off group from group in otherwise like-minded communities. Even so recent a development as the colonial settlement of the New England section of the United States was brought about in part by the urgent desire of certain groups to practise their own peculiar religious observances without interference by, and to the exclusion of, peoples of different faiths. Yet this zealotry did not endure sufficiently to prevent the eventual merging of the, originally, intolerant groups into a larger commonwealth and into the present nation. Indeed it has become a recognized principle that a greater degree of national unity can be attained when complete religious tolerance prevails than under the system of a national religion.

The only restrictive exception that needs to be made to a rule of the compatability of religious tolerance with national coherence, is that religious practices patently inimical to the moral or economic welfare of the nation as a whole, or individuals in it, need to be suppressed.

This applies only to extreme cases, as, for example, the tenet of polygamy that was part of the Mormon faith. The Irish have long struggled for national self-realization; meanwhile are divided into two, bitterly opposed, camps of religionists, and this condition of religious difference is the chief stumbling-block in the way of attainment by the Irish of the desired goal of an independent, all-Ireland, nationalistic union.

Contrariwise, religion may be equally potent with race or language in the establishment and perpetuation of nationality. All three are human attributes or acquisitions of the same order, in the sense that they mark out likenesses and unlikenesses in population groups; and one or the other may be the more significant in the different national groups. Thus, in addition to the Jews already cited, the Japanese owe their national solidarity more to a religious unity than to race or language. Shinto or Shintoism (God's way) in Japan is more than a cult; it is an expression of the complete system of national life. The underlying concept of Shintoism is that the whole people are bound up into one vast family, linked through ancestor worship with the spirit world and so harmonized with the order of nature. As the emperor is the chief representative of the spirits on earth, the direct descendant of the Sun Goddess, his will must be obeyed; and this makes the religious and family system the political system as well.

As it has been argued in earlier paragraphs, systems of government either result from the imposition of some kind of organization on a people or peoples by force, bringing about a specious coherence that it is desired should express

nationality; or are the outcome, and not the creating factor, of a nationality that exists, and in this, as in other ways, is made manifest. Broadly considered, the human attributes and acquisitions of race, language, and religion make tangible the existence of nationality; systems of government set off one state from another.

Before the recent revolution there were bound up together in the Russian Empire a vast variety of peoples; different races, groups using different languages and having different religions, were all, in the eyes of the state, Russians. Primarily, indeed, the governmental system was devised to promote and was actively engaged in the attempt to bring these varied nationalities into the acceptance of a single, *Russian,* national consciousness. With this end in view languages were suppressed by force, as for example Polish and Finnish; popular education was neglected; military service was made universal and compulsory and involved probably the intermingling of individuals from different districts and their transfer from place to place in order to foster the development of an all-Russian outlook. A state religion was also established, the Græco-Russian Church, which included much of the Russian population in its membership. While other religions, except the Judaic, might be freely professed in Russia, the toleration was more theoretical than practical under the autocratic régime. Since the revolution it is evident, as is indicated by the complete disintegration of the former state, that the attempt to develop a single, Russian nationality from the diverse original elements of population bound together in the Russian state by the

governmental measures enumerated, was almost completely ineffective.

Russia illustrates an attempt to develop united nationality by despotic power. In Austria-Hungary several nationalities clashed for supremacy within the confines of a state. In this state the stronger elements had been making some efforts to effect a compromise that would permit of the dissolution of their several particularist features into a confluent nationality, the while the lesser elements were constantly seeking to escape from under the existing governmental yoke altogether. India differs both from Russia and Austria-Hungary in that it presents the spectacle of many diverse peoples united under the control of a benevolent arbiter, endeavouring by administration to bring about a condition of national unity. An English writer, Ramsay Muir,[1] describes India as "more deeply divided in race, language, and religion than any other region in the world. Nowhere is there such a medley of peoples of every grade of development. The experience of the Austro-Hungarian Empire, whose confusion of races is simplicity itself in comparison with the chaos of India, affords a significant demonstration of the fact that parliamentary institutions, if they are established among deeply divided peoples, must almost inevitably be exploited for the purpose of racial ascendancy by the most vigorous or the best-organized elements among the people; and a very ugly tyranny is apt to result, as it has resulted in Austria-Hungary." In other words, the impartial trusteeship of Britain (involving, among other measures

[1] "The Expansion of Europe," p. 134, *et seq.*, second edition, Boston, 1917.

designed to bring about greater cohesion in India, the introduction of the English language in a system of popular education) has not sufficed to bring about enough of a sense of common nationality among the Indians, but that if the pressure of British dominance, however well intentioned it is, were removed, the Indian Empire would tend to disintegrate in the same fashion that Russia and Austria-Hungary have. It is true that other British authorities are more optimistic of the outcome; thus Arnold J. Toynbee [1] writes that the Indian Empire is no longer a passive conglomeration of population; that under the ægis of British rule the three hundred millions of Indian people are being liberated, successively, from chaos and from particularism. "They have at last begun to find a common self-consciousness and to give sure promise that India will take its place in the end as a great self-governing nation of the new calibre." Toynbee describes this as one of the most brilliant achievements of "strong government" recorded in history; the quotation marks are his.

However, it may be doubted whether, in the immediate future, the diverse nationalities of India will arrive at any self-realization of a single nationality. They may evince a common desire to dispense with the British control, but it does not follow that they have therefore abandoned particularist impulses. Strong government in India, as elsewhere, has promoted self-realization of nationality on the part of different groups, rather than the fusion of those groups into one whole. The most recent British proposal made in the year 1918, for changes in the govern-

[1] "Nationality and the War," p. 335, London, 1915.

ment of India, the Report on Indian Constitutional Reforms signed by Mr. Montagu and Lord Chelmsford, as submitted to the British Houses of Parliament, looks to the development of a federated rather than to a single Indian state. How fully this outcome is apprehended as the logical solution of the governmental difficulties presented by India is indicated by paragraph 349 of the Report: "Our conception of the eventual future of India is a sisterhood of states, self-governing in all matters of purely local or provincial interest, in some cases corresponding to existing provinces, in others perhaps modified in area according to the character and economic interests of the people. Over this congeries of states would preside a central government, increasingly representative and responsible to the people of all of them; dealing with matters, both internal and external, of common interest to the whole of India; acting as arbiter in inter-state relations, and representing the interests of all India on equal terms with the self-governing units of the British Empire."

These examples should suffice to indicate that imposed, strong governments mark out states but do not define nationalities. Nor is the imposition of a single régime, despotic or benevolent, very effective in fusing nationalities. If benevolent, it may bring about a federation of nationalities, with responsible self-government, provided that the interests of the individual nations are not mutually too antagonistic.

The mistake must not, however, be made of assuming that all strong governments are imposed. Strong governments, as well as democratic and socialistic systems, may be the expression of the will of the nationalities under

them. Japan is an example of a nationally desired, strong government; Germany was another; the United States in war time developed the same tendency. In each of these three instances the command of the, essentially single, nationality that created the state is that its representatives, the governing officials, shall use all powers to bring about as great a unity as possible in the conformance of individual citizens to the popular will. On the other hand, a single nationality may not be in accord with the strong government which it has itself set up; in that case the nation commonly ousts the government. Thus Wu Ting-Fang [1] describes the government of China as from the beginning of its history until the establishment of the republic, patriarchal in character.

"The theory was that the Emperor was the sire, having received his appointment from Heaven, and his various ministers and officers were the responsible elders and stewards of the various departments, provinces, and districts. For many centuries the occupant of the Imperial throne held his high office for life, and at his demise or retirement some able and virtuous minister was chosen, either by the Emperor himself, or by the people or by their representatives, as his successor. As the government was for the benefit of the people, the Emperor was in some instances compelled to resign, or be forcibly removed, if his reign turned to their detriment. The history of China contains several instances in which these drastic measures were taken to remove unjust rulers. In 1766 B.C., Ch'eng-t'ang, founder of the Shang dynasty, banished

[1] "Inter-Racial Problems," p. 126, G. Spiller, ed., London, 1911.

the wicked ruler Kieh, and in 1122 B.C. Wu Wang, of the Chow dynasty, deposed the cruel King Chou."

After Wu Ting-Fang wrote, the anti-dynastic revolution of 1911 brought about the abdication of the Manchus and the creation of a republic. Despite this, and the notable homogeneity of the Chinese people, movements developed almost immediately after the erection of the republic having the autonomy of both Mongolia and Tibet as a goal. The self-determination of the Chinese people expressed by their establishment of a republic was not based on a consciousness of like-mindedness that included also the Mongolian and Tibetan peoples, for these evidently felt the stirrings of different national aspirations.

In the longer established democracies, of which Switzerland, the United States, France, Great Britain, and the Commonwealth states of the British Empire—Canada, New Zealand, and Australia are the conspicuous examples—the basis of the state is the responsible self-government of the people. In these states the administration changes, or the ministry resigns, as often as periodic elections or the issues of notable questions of policy show the government to be out of accord with the majority will of the nation. These political organizations differ from other governmental systems that rest on the consent of the governed in that the popular, national demand can make itself effective much more easily, rapidly, and generally in the democracies. Democratic governments are, therefore, directly indicative of the nationalities they represent.

Nationality may also find its expression in the accep-

tance by a group of the leadership of some individual who, by his words or acts, gives concrete embodiment to the common sentiments and impulses of the many who follow him. History supplies many examples of this sort of self-determination of peoples, the French under the first Napoleon may be cited as a type. Usually this leadership adherence involves, on the part of the followers, first a sense of their unity and solidarity, and, second, a desire to utilize this loyalty within the group for purposes of conquest; the imposition of the group's will and demands on other peoples. Nationality realized under the banner of a great leader is difficultly circumstanced in that the group involved is, on the demise or failure of the leader, bereft of the particular bond that made the common nationality tangible; hence is then apt to lose much of its potency, or, at best, its nationality will be impaired for a time. Great leaders may bring about the emergence of nationalities from the obscurity of intermixture with other peoples, yet, lacking the pre-existence of a group susceptible to their appeal, the leaders themselves can accomplish very little in the actual creation of nationalities.

The foregoing review is sufficiently comprehensive to assure the essential truth of the contention that no one of the generally accepted criteria will serve as a universal defining measure of nationality. As referred to their several attributes of race, language, and religion, their organization into states, systems of government, emergence and cohesion under particular leaders, nations are diverse units. In each nation some particular one of these factors, or a combination of them, serves as the special index of a nationality realized, but not the same one or com-

bination for all. Moreover, the dominant characteristic, peculiar to each nation, as such serves only to give expression to that nationality; and is not at bottom the basis on and by which the nationality exists. It is also evident that, despite the seeming diversity in the manner in which it finds its special characteristic, the quality of nationality itself is a common possession of modern peoples.

A large proportion of all mankind is now, and has been for a long time past, associated in groups; of which the smaller unit is the family, the larger that of the nation made up of a great number of families. The family unit owes its cohesion to the ties of blood relationship; the larger unit is not much less conscious than the family of a common bond, of solidarity, and of strict confines beyond which it does not extend. As in the case of different families, so also does each nation exhibit particular traits and resemblances which make its identification possible. But these traits no more serve for the elucidation of the basis of nationality than do the particular resemblances within a given relationship account for the family institution.[1] The adherence within the family unit, so obviously based on consanguinity, has given rise to many a laboured argument to prove a similar, more extended racial kinship to be fundamental to nationality. By analogy to the family unit and its potent reason for coherence, appeal to racial homogeneity as the basis of national unity is manifestly seductive. Unbiassed analy-

[1] The development of nationality as resulting from race, language, etc., is discussed in considerable detail and with reference to many specific instances in R. N. Gilchrist's "Indian Nationality," Chap. I, London, 1920. To this the reader may turn for a recent phrasing of the conventional argument *in re* the emergence of nationality.

sis, however, shows the racial theory of nationality to be pure fiction in practically every instance where its application has been attempted. And when all the other attributes and conditions of nationality have been enumerated and described, the occasion for the emergence of the nation remains still to be sought. The conviction that nations, like families, are comparable units, moreover, persists. It appears, also, that if some common, universally applicable determinant of nationality, like consanguinity for the family, could be indicated there would be available a true basis for comparing nations and for discovering the measure in which any given group has achieved nationality.

It is herein proposed that the one comprehensive and completely satisfactory explanation of the origin and development of nationality is to be found in the adjustment of peoples to the lands in which they live. Environment, in other words, creates nationality, and the degree in which environment has made itself effective on a given group determines the measure of national solidarity that group has attained. Environment is potent to create nationality; its influence in developing nationality is persistent and may not be evaded. The relationship that exists between land and people is for nations the equivalent of consanguinity in the family unit. The more deeply a nation is rooted in the soil the more evident does its national existence and solidarity become; just as family ties are stronger the more closely the parent stock is approached.

CHAPTER II

THE LAND AND THE PEOPLE

In the preceding discussion of the diversity of nations (as related to the human attributes and acquisitions indicated by race, language, and religion, and as marked by differences in the organization of states) any significant use of the term "country" was purposely avoided. If the word "nation" were to be used consistently to express the double concept of an organized people occupying a given place, then the term "state" might be employed distinctively to indicate the organization only, and the term "country" could be reserved to signify the location and area of the place occupied and controlled by the people of an organized nationality.

Although the authors of the great mass and variety of literature dealing with nationality only seldom differentiate explicitly between these words, approximately the connotation suggested above is usually intended when one of the three terms—nation, state, and country—is chosen in preference to either of the other two.

The use of the term "country" to signify the *homeland* of a people primarily and significantly, will not, therefore, either violate or extend general preconceptions of its import in any material degree. On the other hand, the fundamental importance of the homeland in the making of nationality is seldom clearly recognized. The place—

not race, language, religion, or system of government—makes a people what they are, develops that consciousness of like-mindedness on which any self-determination of nations must ultimately rest. The cognizance, intuition almost, that a people have of occupying or desiring to occupy, holding for their own, a more or less definite portion of the earth's land surface is the force that makes coherent the nation comprised of many individuals; even though these individuals, within the nation, are subdivided into other groups speaking different languages, having various racial origins, and subscribing to different religions. Government, political entity, the state concept develops later; is a result of the action of this force. Popular confirmation of the importance of place in the development of the feeling of nationality is immediately at hand in the basic sentiment of national anthems. Thus, the first verse "My Country 'tis of thee" has its analogy in Arndt's "Was ist das deutsche Vaterland?"

The force of place has not been unrecognized. Historians and economists have often dandled this idea of the persistent and pervasive influence of environment in bringing about the separation of peoples into cultural groups of like nationality. Like a child, indeed, the concept seems to obtrude itself on their attention, it must be noticed; but, like the child again, the idea is almost invariably dismissed by those groups of scholars with but scant consideration of its significance. To look in the prefatory matter of political, economic, and historical literature dealing with nationality for full recognition of the basic importance of environment and, after finding it to outcrop there, to note the almost immediate disap-

pearance of this factor from any application in the thick strata of pages that follow, may, in fact, be made a reader's pastime; it is so regular a performance. As examples of the "introductory" welcome accorded the principle of the significance of environment in recent historical publications there may be cited the following statements by Beer:[1] "The Slav brought up in a purely Teutonic environment is apt to become a typical German, and this tendency will become overpowering if both he and his associates are ignorant of his racial origins." A little further on (p. 49) in the same volume, Beer quotes Professor John W. Burgess, "A nation may be divided into two or more states on account of territorial separation —as, for example, the English and the North American— and one of the results of this division will be the development of new and distinct national traits."

That the historical writers, after having discerned the significance of environment, nevertheless veer away from the concept without according it adequate analysis and exposition, is probably due to the fact that recognition of environment, as a dominating factor in ordering the affairs of men, would exclude the whole background of the social order from the field of their particular studies and leave them only the incidentals and sequence of human organization to deal with. Hence the complaint of a geographer in reviewing Ogg's "Economic Development of Modern Europe"[2]: "Like so many historical works, it does not show a vital recognition of the geographic factor in his-

[1] G. L. Beer, "The English-Speaking Peoples," p. 45, New York, 1917.

[2] F. A. Ogg, New York, 1917.

tory. The first chapter—'Land and People'—would lead the reader to expect that the author understood and intended to apply some of the principles of geographical influences. In the main discussion, however, these geographic facts, so carefully stated in the first chapter, are not mentioned, or, at least, not used in the economic interpretation." [1]

If, however, the dominance of the factor of environment is neglected in these and other treatises of the economic, historical, and political writers, it has been made a main theme in a volume on nationality by an authority in biology. In his book on "Evolution and the War," [2] P. Chalmers Mitchell states flatly "nurture is inconceivably more important than nature. The environment of the body and the environment of the mind determine national differences." By nurture transcending nature, Mitchell (using Galton's formula) means that in the individual of any generation environment prevails over heredity. The biological evidence that has been accumulated, since Weismann enunciated the general theory, indicates that when a fertilized egg, the joint contribution of the male and female parents, develops, its growth proceeds by a series of cleavages. One part of the egg by continuing with growth and subdivision produces the differentiated, specialized somatic or tissue cells that perform *various* functions in the body, but which lose the *general capacity* to reproduce *all* the qualities of the animal. The germinal part of the egg may increase in size and subdivide; but all the divisions are alike and have the same qualities

[1] G. B. Roorbach, in *Geographical Review*, Vol. II, pp. 178-9, 1918.
[2] Page 82 and Chap. V, London, 1915.

as the original. These are the sexual cells; they constitute the germ-plasm or hereditary material of the stock. These germ-plasm cells lie passive in the tissues, unaffected by the fortunes of the body cells of the individual, and are ready to transmit, unchanged, the qualities of the *parent* stock to the new generation. Thus the hereditary material has a high degree of stability and transmits to a new generation the hereditary characters of the generation from which it came, *unmodified* by the *acquired* characters of the second set of parents, and different in the third generation only as the stock-plasm of the two new parents is unlike.

From this it might seem that race, after all, is at the basis of nationality. The actual fact, however, seems to be that nationality creates race, rather than race nationality. Under even modern conditions of relatively free movement on the part of individuals from place to place marriage has remained very regionally circumscribed. It is asserted [1] that owing to the intermarriage of cousins no people of English descent are more distantly related than thirtieth cousins; again that the former Emperor of Germany had only one hundred and sixty-two ancestors in the tenth ascending generation, instead of five hundred and twelve, the theoretically possible number; and finally, that theoretically each individual now living should have had at the beginning of the Christian era one hundred and twenty quadrillion ancestors, an obviously impossible number. If race is the root-factor of nationality, it is only so because *regional isolation has limited ancestral*

[1] Edwin G. Conklin, "Heredity and Environment," p. 223, second edition, quoting Davenport and Plate, Princeton, 1918.

numbers. But, as has been shown in the previous section, quite different racial stocks may combine, yet unit nationality result. The basic nature of the germ-plasm of two races, is, in other words, so immobile, and so permanent, that its mixture does not produce an individual enough different from the offspring of like racial parents to make impossible the absorption of the individual of mixed blood into the nationality produced by the environment in which the hybrid is born. In respect of the development of acquired characters, somatic adaptations, he is as well off as the native son of many generations in the same environment.

When the history of the human race, as a whole in its relation to world environment, is rightly understood, this uniformity and permanence of the heredity stock appears not at all extraordinary. The science of physiography, in its development during the past one hundred and fifty years, has accumulated a variety of evidence, in sum conclusive, that notable changes in the configuration and relief of the earth's surface require hundreds of thousands of years for their evolution. Formerly it was thought that the upheaval of mountains and the creation of great valleys and bays were cataclysmic or catastrophic in nature, taking place as great convulsions occupying only short-time intervals. This is now known to be a wholly erroneous conception. It is just possible that some of the great mountain ranges of the world have been uplifted since the earliest dawn of human existence, but man has dwelt among hills and valleys that have changed only little from the beginning of historic time until now. True, the physiographic record shows that, in the millions of years

that have elapsed since the present order of nature has been established, mountains have been uplifted and worn down repeatedly, but man has been on the stage only for the last part, of the last scene, of the last act, in these vast cycles of change. The only great episode that even prehistoric man has witnessed, a time when conditions on the earth were materially different from what they are now, was the Ice Age, and that seems to have closed some 35,000 to 60,000 years ago.[1] The configuration of coastlines may have changed slightly since then, areas of land, in general of limited extent, may have sunk beneath the waves, with the result that straits were opened and one-time peninsulas made into islands. Conversely, some new land may have been added by uplifts. But the great continental rivers, throughout all the history of man, have flowed along essentially the same courses, only deepening their valleys slightly at some places and filling them at others. The big fact to be noted is, that while the landscape may have been modified many times in detail, its broader aspects, the nature of the relief and the disposition of land and water, and the possible combinations these might present in a given region, have remained unchanged for countless generations.

As with the physical aspect of the land, so also with climate; the rule has been uniformity, not sudden fluctuations from cold to warm, or wet to dry.

The climatic oscillations that have occurred, and are occurring, are apparently of only slight range in long-time

[1] Baron Gerard de Geer has demonstrated ("A Geochronology of the last 12,000 Years," International Geological Congress, Stockholm, 1910) that 12,000 years have elapsed since the beginning of the retreat of the continental ice sheets from southern Sweden.

periods. Even the Ice Age may have been ushered in by only a relatively slight lowering of average world temperatures; one measured, probably, by not even tens of degrees. In the last two thousand years the swing of a long-period cycle of wet and drouth may have been responsible for so much of a desiccation of Asia as to have made necessary the irruption of barbarian hordes into the moister lands to the west. Evidence of similar periodic changes from wetter to drier climatic conditions are found in the characteristics of the annual rings of wood formed by the Big Trees of California which have life spans that, in individuals among them, go back to the time of Christ. The notable thing, however, is that the trees were able to survive these changes; indicating either that the climatic oscillations were of so long duration as to enable the trees to adjust themselves to the changes, or of so slight variation as not to interfere with their continued growth. At the desert edge, where life is precariously maintained, a change to only slightly drier conditions might be the proverbial last straw to make conditions impossible, while elsewhere it would affect the growth of vegetation in no perceptible degree.

All this is contrary to popular thought, which conceives climate as highly mutable during the lifetime of a single man, and, by inference, correspondingly more so in the course of hundreds of years. It is surprising to find that the average of temperature and of precipitation in even the variable West Wind Belts of the temperate latitudes fluctuates by perhaps only a degree or an inch from one ten-year period to the next. Curiously enough, however, there does seem to be in those regions a slight swing

from dry and warm years to wet and cold years, complete in every thirty-five or forty years, and this may be the occasion for the memories of "old-fashioned winters" kept alive by old residents' tales. The interesting thing about this cycle is that it makes its round in the average life of a man, hence is a matter of the environment of the individual and not of the race.

Racial environment is, therefore, essentially static. The hereditary stock of germ-plasm transmitted from generation to generation has, as Mitchell puts it (p. 86, *loc. cit. ante*) "grown old and formal with regard to the persistent features of its environment, and if these are not present it fails to develop and dies." This does not mean that the races of man, as distinguished by skin colour or other persistent heritable characters, do not differ in the nature of their germ-plasm stock. On the contrary they do and markedly. For while the race environment is static over a given region of the earth's surface it varies greatly from place to place, and, as has been set forth in preceding paragraphs, the different races of mankind have been, up until the recent present, geographically isolated to a remarkable degree. And it is quite probable that the hereditary potencies of the germ cells can be altered by stimuli acting on the parental body. Accordingly, there has been opportunity for racial modification of the human stock by mutation, originating from the influences of a particular environment exerted on countless generations that had uninterruptedly dwelt therein. Conceivably the offspring of the union of an Eskimo and a negro from Central Africa would be endowed with a mixture of hereditary stocks so different in constitution as to make the children incapable

of surviving in the environment of either parent; but this would be one of the most extreme cases possible. Other racial stocks are known to be so sufficiently similar that the offspring of mixed marriages is entirely capable of existence in the home of either of the parents, perhaps in a region remote from both ancestral habitats. Air, water, light, heat (with temperature variations between only relatively narrow limits) food, and a land home place are the environmental prerequisites of each race; and except for possible extremes, such as the habitat of the Eskimo contrasted with that of the tropical negro, are available in so nearly the same measure everywhere over the earth that the basic hereditary stock of man is like and static to a marked degree. Heredity, coupled with isolation in a given environment for a sufficient length of time, may by mutation and subsequent selection and fixation eventually result in permanent racial modifications, differences in skin colour, stature, and perhaps even head form. But to argue that, because isolation in a certain region develops particular acquired capacities and aptitudes, these acquired characters are transmitted, through parallel modification of the germ-plasm, from one generation to the next, is to claim for environment a degree of potency for the modifying of the stable human stock that is not warranted by the biological evidence. And, even if by long-continued isolation certain acquired characters were made heritable, to assert that nations have been differentiated by this means is to ignore the recency of establishment of most nations and the racial mixtures of which national groups are composed.

The production of nationality, then, is simply the physi-

cal and mental adaptation of the individual of each generation to the place in which he lives. Biologically it is the adjustment of the tissue cells of the human organism to the environment in which they are placed, not the development of modifications in the stable germ-plasm. Most concisely put, nationality is the habits, mental and physical, that the place engenders in the individual. As individuals, the vast majority of human beings have for the duration of their life spans been firmly and continuously fixed in the environment of their birthplaces. The outlook of the average man is, therefore, very narrowly restricted. The child is taught to react to his environment as his parents did before him. He belongs to a certain cultural group which was also that of his parents. As he grows older he does as his neighbours do; he knows what his neighbours know, and he thinks much along the same lines as their thoughts run. And it should be remembered that even in the advanced industrial nations a large percentage of the population (Gt. Britain 13 per cent, U. S. 33 per cent, France 41 per cent, Belgium 22 per cent, Germany 35 per cent, Austria 61 per cent, Hungary 70 per cent, Italy 60 per cent) continues in agricultural pursuits and thus remains intimately associated with the land. Even in great cities, what may be termed the inertia of home, or the familiarity of the rut, tends to hold the individual in the place where he has been born and brought up. After reaching maturity in a certain environment he comes to know both the opportunities and limitations of his surroundings; hence is extremely averse to making a change. A hazard of new fortunes in a strange locality involves, for the vast majority, too great a readjustment in the order

of their lives to be undertaken except as compelled by extremely adverse conditions at home or induced by very great enticement from abroad.

If the effectiveness of the environment in moulding the life and outlook of the individual be granted, the question immediately arises by what process or processes does the individual become conscious of the *extent* of the community to which he belongs; that is, of the confines of his nationality? Or, otherwise put, how are the nationalistic influences of one environment delimited and marked off from the next?

Though the scope of the average individual's activities is circumscribed, he nevertheless comes in contact with a number of other human beings that belong to his group, have the same home place, and are, accordingly, affected in the same way as he is by environment. These individuals in turn have each their circles of contacts, so that, provided there is no lack of continuity in the occupation of the environment by a human population or check by a notable geographic barrier, such as the sea or a nearly impassable mountain range, there can be an indefinite expansion of a like-minded community.

If the environment is monotonously uniform over a wide area, this sameness may suffice to establish the bond of nationality. If the environment varies only by insensible gradations from one set of conditions to another, the occupants of the possible extremes in its manifestations may be subjected to quite different influences, yet be linked together by the intervening groups that come under, in inverse ratio, the influence of each of the contrasted border areas. How far a merging of people subject to

differing local environments may go depends in large measure on the cultural status of the group itself. This in turn is a reflection of the general environment, since the sum of the conditions of the wider environment determines the degree of necessity, opportunity, and protection afforded the human population therein situated, hence, also, the measure of advance possible to the inhabitants. Primitive fisher and hunter folk do not achieve nationality, because (except for the confines of the village in which they dwell) they have no sense of holding, possessing, by occupying, the lands over which they roam.[1]

Nor is this sense of owned country much more strongly developed among pastoral nomads; these owe allegiance each to his tribe and the tribes are in competition with each other for the use of the land. Only where agricultural occupation of a region can be and has been accomplished is nationality possible. Commercial and industrial activities consolidate nationality further because they promote an even wider possession and utilization of the resources of the land than does agriculture.

Agricultural and industrial occupation of lands involves a large measure of co-operation between individual family and community groups, specialization in activities, and interchange of products. By these means the human

[1] Paul S. Reinsch, "Colonial Administration," p. 59, New York, 1905. "The causes that have kept the negro from acquiring a higher social organization are closely connected with the fact of the constant shifting of the African population, which was not held in place by the physical conformation of territory such as that of Greece and Italy. The African societies were thus not given time to strike roots and acquire a national tradition and history—the memory of races—which is one of the chief ingredients of civilization."

fabric is knit together in a mesh that can not easily be dissevered without doing violence to the whole. An injury to a part accordingly becomes a national injury and is resented accordingly. Loyalty to immediate neighbours involves, therefore, national loyalty as well. Often, also, some enterprise of sufficiently wide scope to require the collective effort of the whole group is undertaken and in its accomplishment national cohesion is more firmly established; there is developed a will to co-operate.

This is only a generalized outline of the possibilities open to the enlargement and consolidation of local environmental groups into a greater national whole. And it would be difficult to set forth in detail just how the restricted community environment that moulds the habit of the individual expands into a national setting.[1] In each instance the set of factors would differ in some degree. The early self-realizing peoples, nations (excluding the mosaics that were patched together into empires by conquest) were small. Modern facilities for the profitable exchange of goods from distant points and rapid communication of intelligence are in large part responsible for the possibility of big nations. At some juncture either two, or a number, of hitherto isolated communities become conscious of similarity, of an identity of interest in occupying a given domain, and nationalism is born.

[1] "Nationality is but one degree in regional consciousness. Despised parochialism, country patriotism, national sentiment, and pride in imperial heritage are various steps. . . . Geography teaches that regional consciousness in all its degrees is a function of mankind, and that internationalization, in so far as it attempts to stifle regional expression, is a fallacy." R. N. R. Brown, in "The Principles of Economic Geography," p. xv, London, 1920.

The case of modern Italy and the Papal states may be cited. The inhabitants of the latter had become conscious of their Italian nationality and craved a union with surrounding Italian areas, of which they felt their environment was a part. The Pope in opposing the union was thwarting the aspirations of a nation to realize its complete possession of the homeland. The *Italia Irredenta* movement had an exactly similar basis. The end of "Kleinstaaterei" in Germany was first brought about by trade necessity, the establishment of the "Zollverein" to make possible free interchange of goods over territory recognized as belonging to the same people needing to co-operate. But, as was the case with Greece in an earlier time, when Athens and Sparta combined to face the Persian, Xerxes, so also it required participation in a common enterprise against France to bring the Catholics, south Germans, to a realization of their national unity with the Prussian Protestants.

As widely as there exists a willingness to co-operate, without discrimination between individuals or communities, in the development of the resources of lands, and as widely as the feeling exists among the inhabitants of these lands that they are co-partners in the possession of these lands—so far does nationality extend. American nationality has developed on exactly this basis. When disintegration and the formation of separate nationalities has threatened it has been because community of interest had failed; the sense of similarity of environment, common possession of the country had become dimmed. Canadians, Australians, New Zealanders, and perhaps the South Africans are ready to relinquish a portion of their inde-

pendent nationality for a broader British nationality and Britain also stands ready to accept them. The near future will probably see many steps taken to give expression to this larger British nationality by closer political and economic co-operation. Even South Ireland and Irish nationality have been able, finally, to realize itself and themselves included in and co-operating with this group.

While it is difficult to set forth concisely the relation of established nationalities to the lands which are their homes, the same end—that is, of showing the dependence of people on place—can be much more readily attained by citing the multitudinous instances where environment has had a very definite influence in developing national traits. It is not within the province of this study to attempt an enumeration of these in detail. This has been done in great fulness by Miss E. C. Semple in her volume on "Influences of Geographic Environment" [1] to which the reader is referred. If, however, it can be made clear that environment is competent to *change* the nationality, both of individuals and groups the argument is significantly fortified.

When an individual leaves the homeland and enters for a greater or less length of time into a new environment, and among people of different nationality, several things may happen. He may find the new situation repellent for some reason or other; it may appear inferior to that which he has left behind. Or the nationality that he enters may find him, personally, or his nationality, his acquired characters, unacceptable and unassimilable into their group.

[1] New York, 1911.

In either of these instances he is kept out of the true setting of the new place and tends to preserve his original traits. This, essentially, has been the history of the Jews. Excluded, or holding themselves aloof, from the many nationalities among which their numbers are dispersed, the Jews preserve some of the traits acquired in their homeland of Palestine. That this is something more than a geographic inference is made evident from the statement of Jacob H. Schiff [1] endorsing the Zionist movement because it will provide a place where the Jew "shall be able to go with the assurance that he shall find *sympathetic surroundings* and conditions under which he and posterity shall be willing to live." It should be noted, however, that these persistent characteristics of the Jew are the effect of the isolation and continuity of the Jewish social environment. As pointed out by Oakesmith [2] Jewish aptitudes and characteristics in other respects are, and have been, reflective of the nature of their relations with, and the degree in which the Jews have been permitted to come into contact with, the general environment in which they are situated. The Jew was a farmer and herdsman in Palestine, a change in environment during the Babylonian exile turned his attention to commerce; in Europe he was first a merchant on a large scale and then became a pedlar, huckster, and small money-lender, a status in which he remained for five hundred years. Modern industrial development provided the Jew with the opportunity to become a money-lender on a large scale; association of Christian

[1] *New York Times*, p. 8, Sept. 12, 1918.

[2] John Oakesmith, "Race and Nationality," pp. 65-67, New York, 1919.

and Jew in capitalistic enterprises, coupled with the amassing of great wealth by Jews, has gained for the Jew access to other professions, occupations, and politics. Only the social barrier now remains to prevent his complete assimilation into particular nationalities. And his social disability is owing to traits acquired in Asia, persistent until now, because never freely subject to the communal environment of other regions.

If, on the other hand, the immigrant finds the new environment attractive, or is simply unprejudiced in regard to it, and meets with no antipathies that debar him from entering into it, he rapidly acquires a number of mannerisms peculiar to the new locality, perhaps quite unconsciously, but of a nature glaringly apparent to any old acquaintances he may chance to meet when he returns to his former home on a visit. A long enough residence in the new locality weans him wholly away from his earlier home loyalty and national allegiances; he becomes a native of the country of his adoption and his children know no other.

How far this adoption of, and adoption into, a new atmosphere may revolutionize the attitude and viewpoint of the individual is indicated by the fact that "Treitschke, the most Prussian of Prussians, was a Saxon of Tzech descent; and Nietzsche, the unconscious prophet of Prussianism, prided himself on his Polish blood." [1] The more completely newcomers are cut off from their old environment, the more readily can they be naturalized. Probably this was what Lord Bryce had in mind when in a speech

[1] G. L. Beer, "The English-Speaking Peoples," p. 46, New York, 1917.

on the relation between race and history he suggested that the teaching of history ought to be forbidden![1]

The intruders into an established community life must be acceptable to the occupant group, else they will not be permitted to enter into the native adaptation to the environment, will not be allowed to share in all the opportunities the habitat offers; consequently can not come fully under its influence. Between the five divisions of mankind, as based on skin colour, racial antipathies exist that prevent their free intermingling everywhere. Chinese immigrants are excluded from the United States, all coloured peoples from Australia. If permitted to enter the community the immigrants must be capable of participating in the institutions of the resident group. If the first generation fails in this respect, immigrants of that type tend to become segregated and to form an alien group within the nationality. The Slav peoples coming to America in great numbers in recent years are being isolated markedly; in a lesser degree this is true also of immigrants from the south of Italy. This tendency to segregation is the chief problem of the "melting pot," a phrase descriptive of a difficulty and a process that have aroused misgivings in many American minds. It is altogether likely, however, that the "melting pot" will find its solution in a

[1] "As nearly as can be gathered from the heated discussion now going on, De Valera is an American-born Irishman whose father was a Spaniard. This may sound confusing, but is explained by De Valera's friends. His mother was Irish and his father Spanish; he was born in New York City; his father died when he was about two years old, and his mother returned to Ireland, taking the child with her. There he grew up as an Irishman." Editorial Paragraph, *New York Tribune*, 1920.

more complete adaptation to the environment by the second and third generations of the descendants of difficultly assimilable immigrants, if only the flood of new arrivals from the old homeland, and bearing its stamp, can be checked.

Even the most formidable of racial and linguistic barriers to assimilation are not insuperable; as is indicated by the present position of the negro in American life. The negro was not a willing or even a neutral incomer. He is, on the contrary, representative of a subjugated, deported people; his case involves the greatest possible violation to natural adaptation that can be conceived. He was from the lowest groups in the scale of human culture, therefore originally absolutely incapable of assimilation into the life of the resident group; moreover the slave status in itself relegated him to a complete isolation from the normal influences of the environment. Race prejudice continues to exclude the third and fourth generation of the savage slave's descendants from participation in many of the opportunities of American life, and this despite the fact that individuals, at least, have showed that they have so far been moulded by the environment as to be capable of mastering its conditions. Yet these great handicaps have not prevented the negro from sharing in American aspirations, ideals, and institutions to a notable extent.[1]

[1] President Harding in his speech at Birmingham, Alabama, delivered October 26, 1921, indicated in plain language what should be the status, in the future, of the negro as an American citizen. He insisted, and rightly, that the negroes as well as the whites were entitled to all the advantages of American educational, economic, and political opportunity, but that, on the other hand, the

The position of the negro serves as an introduction to another factor that is involved in these processes of welding together groups that are in harmony with their surroundings and conscious of a group like-mindedness and culture, but were derived originally from diverse elements. That factor is the existence within the region of a type of people and culture that the newcomer may emulate. If a superior people and type of culture is imposed on an inferior, the latter will be rapidly displaced; partly on account of the hostility to the invader and his rule that leads to conscious effort to preserve the former adaptations, partly because the invading type and culture, if really superior, will make the environment yield larger returns per unit of human effort. The inferior type, in consequence, will not be able to inhabit the area in competition with the newcomers. This is essentially what happened to the North American Indian. Such, appar-

negroes could not hope for, and should not strive for, social and marital intercourse between the two races. Whether or not racial amalgamation may be advisable in other quarters, it has no place, as between negro and white, in American life; nor is it needed. The white race in America has nothing to gain from social contact with the negro, does not want it, and is under no obligation whatsoever to grant it. A Greek scholar and a social butterfly may find pleasure and profit in each other's company, but only if and when both parties are willing they should be together. As the white race does not wish to have social relations with black people there is no reason why such contact should be forced upon the white race. Men may be created free and with a right to equal opportunity, but no man need therefore invite to his dinner table a person whom he dislikes, whether that person is of high or low degree. The parties to mixed marriages must therefore expect to be ostracised by both races, and their offspring also. Some are born men, others women, some white, some black; the "accident" of birth is the will of the Creator.

ently, also has been the history of the successive waves of migration of Eastern peoples into western Europe. In those primitive times a superior people possibly meant only a more virile stock; one accustomed to a harder environment than that into which they came, and from which, accordingly, they were able to displace their predecessors. Probably, however, there was a large measure of absorption as well, as there was no racial barrier to interpose. If the invaders are not really superior in culture and stock, and prevail simply by force of arms, the only outcome possible is long-continued foment while both parties suffer modifications in type due to their reaction on each other in the common environment; with the result that eventually they merge to form a unit group.

But the most pertinent illustration of the naturalization of the individual is afforded where the newcomer has reason to emulate the ways of the earlier residents, and where the influx of aliens is by individuals and families, and not by wandering hordes or armed men. The growth in population of the United States for a long period of years was by such individual and family units, and the pioneer settlement of the country was accomplished by English-speaking people. The relation of these English to the later comers is, therefore, a quite interesting case in point.

Before the great increases in population occurred in the various parts of the United States, families of English descent had occupied nearly all of them, sparsely to be sure, but yet as first comers; not at the same date in all parts, but always ahead of the rest. These old settlers were moulded by the environment, and their adaptations

to it determined the way of the communities of diverse stocks that were to develop with the increase in numbers.

It is true that French, Spanish, and Dutch-speaking peoples were early rivals of the English for possession of the country. But the French were led to become traders and trappers, for the most part they never had a real hold on the soil; the Spanish, who were adventurers and freebooters, had even less connection with the land. Where either of these peoples actually settled in numbers their influence still lingers, as in Louisiana and in the Southwestern States. In these regions they, not the English, constituted the dominant strain that determined the way of the environmental adaptation. On the other hand, it is conceded that the Dutch settlers along the Hudson yielded to the English, primarily because they realized that the institutions of their English neighbours were superior to their own, hence worthy of emulation.

But the clearest case of assimilation due to an established adaptation is that shown by the Germans who came into the country in numbers at a later period. The German immigration reached its height in 1882 when 250,630 were admitted; thereafter it rapidly declined. Between 1820 and 1910 Germany furnished over five million immigrants to the United States, a number only exceeded by the English-speaking peoples, nearly eight millions of these coming in the same period. The Germans, moreover, spread themselves very evenly over the whole extent of the country, preponderatingly, however, in the Northern states.

While the height of the wave of German immigration occurred in 1882, many came in the years previous to

that one, comparatively few since. Most of the German immigrants of the earlier period were from the middle class of German population, and, although Germany had been consolidated into an empire in 1871, it had been a country of many provincial districts previously, and the impress of this provincialism could not have been eradicated completely from the population by 1882. Because of their station and provincialism, therefore, the German immigrants were, in the average of all their number, essentially uncouth as compared to their new neighbours of English speech; for these had for the most part enjoyed several generations of a broader life in America, had become fitted into their New World environment. The "Dutchy" newcomer, on account of his unsophistication, was made the butt of many jokes; accordingly he made haste to discard as rapidly as possible those traits which revealed his origin. He found that the adaptation of the established English-speaking people was superior in fit to the new environment than the ways he had learned at home, and was, therefore, entirely willing to be moulded into its form. On the other hand, the German was accorded full and complete recognition as a citizen, on a par in standing and opportunity with those of English tongue, as fast as he became adjusted to the American conditions.

Beer argues, indeed, that in America "there is a largely unconscious, but very real, determination on the part of those of British ancestry not to allow the control of affairs to pass out of their hands." [1] It may be doubted whether

[1] G. L. Beer, "The English-Speaking Peoples," pp. 190-191, New York, 1917.

anything of the kind really existed before the World War. "Unconsciously" perhaps it did, in the sense that inasmuch as the English strain has always preponderated very greatly in the population numbers of the United States it might be expected to predominate. In 1790 a little over 90 per cent of the white population of the United States was of British origin, not quite 6 per cent of German ancestry.[1] In 1900, although the population of the territory of the United States, as it existed in 1790, had grown from three millions to thirty-five millions, the relative proportions of inhabitants of English and German origins remained practically the same (p. 121, *loc. cit. ante*). There can, accordingly, be little significance in the compilations of eminent American personages, cited by Mr. Beer, showing that, for approximately every one hundred and twenty-five British names in his lists, only six German ones appear; for the ratio is essentially the same as that for the total population.

The widespread distrust of all persons having Germanic origins or connections that existed during the World War does not warrant the assumption that a similar feeling existed before 1914. It is, moreover, the personal opinion of the writer that this distrust (however unhappily justified) tended much more strongly to undermine the American loyalty of the citizen of German origin during the war period than could any amount of German propaganda. And the saving grace of the situation was that in each community loyal citizens of German ancestry were sus-

[1] "A Century of Population Growth," p. 117. Publication, Department of Commerce and Labor, Bureau of the Census; Government Printing Office, Washington, 1909.

tained by the continued confidence of their British-descended friends and intimates, regardless of the feeling current in the nation at large.

The loyalty of patriotism is in its ultimate analysis only allegiance and devotion to friends, neighbours, and associates. By co-operation with those who live about him, and with those whom he encounters in his daily affairs, the individual derives advantage from the place. If, then, he adheres to the self-seeking of any foreign community and to the disadvantage of his own home, he is not only a traitor to his friends but a fool as well. While there are traitors of this kind it would probably appear, on examination of the individual cases, that in the majority of instances the actual interests or expectations of the disloyal individual in the foreign place are greater than those he has in his immediate environment. But it does not follow that foreign interests are indicated by descent. The American of any other parentage than German who has studied music in Germany or sought a German university degree had a closer connection with Germany than the American of German origin who may have acquired some pride in his ancestry because of glowing ante-bellum accounts of German efficiency, printed in American periodicals, and a marked Anglophobia, from studying American history in texts written by British-descended authors! So potent, in fact, is the consciousness of adaptation to a particular environment, of like-mindedness with a limited group, that it actually constitutes a deterrent to the development of a larger nationality. But once established the larger units tend to persist, for the smaller communities find that the greater protection and the enlarged op-

portunity of the expanded organization more than compensate for the loss of some particular advantage of the smaller group. In the end, always, the individuals of a community and the communities of a nation owe their cohesion to the influence of the place.

CHAPTER III

THE NATION AND THE PLACE

No one of the commonly accepted criteria—race, language, religion, or governmental system—can by itself be made to serve as a basic determinant for distinguishing between nationalities. Collectively—that is, as they are encountered in a variety of permutations and combinations—these items are representative of the culture of nationalities. But any attempt to make distinctions between nations by using race or language, or any other similar attribute, as a unit character for comparison, fails, because whatever significance indicative of a particular nationality that these elements may have depends upon the special combination in which they are joined in each case. Moreover, each national group exhibits, in its human units, personal traits which also enter into the complex that in sum expresses nationality. And this totality of the complex is in each case a reflection of the particular environment.

Very few of those who may lay claim to be informed are now disposed to controvert the existence and the effectiveness of the environmental influence in shaping the outlook and the particular acquired characteristics of human communities. But it is still quite generally maintained that race, language, literature, religion, customs, moral and civil law are a part of environment—are, in

fact, the part which alone is peculiarly responsible for the development of distinguishing traits between people, and, further, that this part is independent of region as such. It is herein contended that this position is not based on fact. On the contrary, the culture of the group which these things collectively represent is the product of environment. The culture of the group is, indeed, potent in moulding the individual but has itself always a locational origin and aspect.

The pervasive influence of place, of the inanimate furnishment of the world, both inorganic and organic, is at the bottom of environment. Moreover, since the inorganic engenders the organic, everything of environment is finally based on the lay of the land, its equipment and contact with water, both fresh and salt; and its position under the sun. And, as individuals and communities do vary widely in culture, it follows, further, that there must be notable differences in the regions of the earth, for otherwise men everywhere would be patterned after the same mould and there would be no occasion for argument.

Finally, then, as to backgrounds the severalties of nations are marked out by the major variations in kind of the lands of the earth.

A nation may be defined as a group of individuals animated by a unity of interest. In the national community there is common consent that all individuals within the group may participate in the general advantages of the unit. In this sense the nation is the direct descendant of the family, the clan, the tribe. Individuals do not have equal standing within a nation, but those who are of the

group may compete with one another for place and possessions on equal terms, except as this free competition may be restricted by the internal organization of the group. Such restrictions, however, are again a matter of common consent. There may be included within the nation minorities of population that do not share these rights, but those peoples are only within, not of, the nation. No matter how great a disparity of standing the particular culture of a nation may impose on its different classes of citizens the essential unity of nationality is made manifest in war when all groups lay aside their particular interests to participate in the common armed enterprise. Willingness to do this, involving, as it does for the individual, the possible supreme sacrifice of losing one's life, sufficiently expresses a realization of distinctive nationality.

The correlation of nationality, so defined, and place is for particular instances a problem of complexities. The fact that place is distinctively the basis on which national existence develops does not preclude history and economic organization from significance in particularizing on the growth and status of a given group. Because place is fundamental, it does not follow that an identical national culture would result from placing unlike peoples in turn on the same region. Progress everywhere is ultimately dependent on individual initiative. When such initiative is successful it is immediately copied extensively and this gives a trend to future development. In the early stages of their occupation of the same locality, each different group would follow the trend supplied by the early utilizations of its own members, hence if the region were at all varied in its possibilities it would only be by coin-

cidence that the ultimate cultures would be alike. Peoples, leaders, varied cultures have identity; are competent factors in shaping the course of human events, though they owe their existence and opportunity to place.

Considerations of this kind make it necessary, in any attempt to demonstrate the relationship of place and people in the development of national culture, to go back to the first manifestations of communal organization. Modern nations have had too many contacts with differing earlier cultures and are too intimately occupant of their lands—that is, have developed so great a variety of resources—that they do not afford opportunity for simple analysis. It is otherwise with primitive folk. The appellation, primitive, in itself implies that the culture it designates has not suffered modification by contact with varying cultures; through which opportunity is afforded for advancement along different lines. If, further, a primitive people is regarded as being first in a place it follows that their culture developed—that is, became organized—in accordance with the impress of the place.

Geographers have a formula which is admirably adapted to the measurement of the possibilities of a place for occupation by a primitive group and, by virtue of this possession, of the possibilities of advance in the group. This formula consists of the three words: Opportunity, Necessity, Protection. Opportunity may be defined as the extent of the margin of production (primarily of food) over subsistence; Necessity, as the existence of a stimulus to expenditure of energy, usually referable to a season of dearth or unproductiveness; Protection, as the degree of shelter afforded by natural barriers from interference by

other groups. If any one of these three requisites is entirely lacking in a given place it is obvious that progress in organization will be difficult, if not impossible, for the primitive peoples there dwelling. It may be, also, that an inordinate provision of one of these factors will negative the effects of the other two. Thus too great Opportunity discounts the Necessity for effort, too great Necessity may mean that only bare existence is possible, and too complete Protection may indicate isolation and stagnation. If, however, a place affords Opportunity, Necessity, and Protection in not disproportionate ratio it may be expected that an occupant community will develop in accordance with the range of possibilities, in the variety of combinations and differences in kind, that the three potentialities afford.

Another consideration, however, remains to be taken into account. A nation implies a larger population group than that of a clan or tribe. The first step in the development of nationality, accordingly, involves the establishment of cohesion, unity of interest, between comparatively large numbers of people. It will readily be apparent that this result could scarcely come about in the youth of a people if they were subject to an environment which (though it might constitute a suitable background for a nation well advanced in cultural status) was distinctly varied in aspect within narrow areal limits. In the diversified region each separate departure from the environmental norm ought, and probably would, tend to create a special cultural variation in the primitive groups, hence would automatically check development, because each distinctive region would be too small to permit the aggregation of large numbers.

The possibility of a nation, as distinct from a tribe, depends on numbers. Once the numbers are associated further national advance becomes possible. Therefore, in addition to affording the proper measure of Opportunity, Necessity, and Protection, a place adapted to bring about the first manifestations of national organization must also possess a uniformity of environmental conditions over relatively wide areas.

The lands of the world may be broadly classified into seven great types of natural regions: Tropical Lowlands; Tropical Uplands and Tropical, Small Islands; Deserts; Desert Edge Lands; Steppe Lands; Temperate Humid Lands; Arctic Tundras.

It is significant that only one of these types of natural regions, the Temperate Humid Lands, presents a notable diversity of environmental conditions within small areal compass, and that this is the type in which the modern nations have developed. With the possible exception of the Tropical Uplands and Tropical, Small Islands, which furnish examples of arrested national development, the other regions are all marked by a broad uniformity of conditions over wide stretches of territory, and it is on these uniform lands that the first advances in national organization were made, and on them the primitive peoples of the world still live.

The Tropical Lowlands are notably uniform and have, in places, a wide extension as continuous territory, hence afford the initial prerequisites for the founding of nations. While Opportunity in such lands is ordinarily ample it is a mistake to assume that life in all equatorial lowlands is easy. The tropical luxuriance of vegetation may afford

but few species of plants or trees producing material suitable for human food, and the animal denizens of those lands may also be little adapted for human consumption. Birds and fishes may comprise the bulk of the available food supply. Under limitations so imposed population growth is inhibited; accordingly, the presence of the numbers that are a first essential for the constitution of a nation is precluded. Ordinarily, however, it may be assumed that the Opportunity of the Tropical Lowlands is ample, for the needs of their inhabitants are slight. Native fruits, fishes, birds, and forest animals supplemented by the yield of simple, pointed-stick agriculture furnish the food supply. Clothing and shelter are little required. The density of the equatorial rain forest provides Protection to the degree of isolation. Indeed the tropical forest is an ineradicable obstacle to progress on the part of man, in his early stages of development, because its luxuriance of growth is so great that he can not cope with it using primitive tools and methods, hence is estopped from making extended clearings.[1] It opposes itself quite successfully, in fact, to the mechanical ingenuities and multiplication of power brought forward by modern industrialism. But the total lack of any stimulus to effort is the factor that has most effectively discouraged progress in tropical lowlands. The absence of seasons, the unending

[1] Raphael Zon, "Forests and Human Progress," *Geographical Review*, Vol. IX, p. 140, 1920. "It (the forest) prevented the spread of the Hamites from North Africa southward and stopped the movement into the Congo region of the cattle-keeping aristocracies such as the Bahima. . . . In the heart of the Congo forest no traces of an ancient population have been found. All evidence points to a comparatively recent penetration of man."

monotony of days, each like the last, and again like the one to come, make any provision for the future an altogether futile proceeding. The continuous heat and moisture further discourage effort.

It is true that at favoured spots fishing villages of some size and permanency may become established, for fish-food is, under these conditions, even more easily available than the kill of the hunt or the recovery of forest products. But where considerable states have been set up in the tropics, and life made dependent primarily on agriculture, these advances have probably always resulted originally from the invasion of the tropical area by a more virile stock from lands with a harder environment. Under the compulsion of alien rule the forest and jungle may be removed by native labour. Then the larger and more certain food supply brings about population increase. But the intruders who force these changes in the régime of Tropical Lowlands themselves soon yield to the climatic enervation, so that, while their states may exhibit a certain barbaric opulence, perhaps a few architectural monuments, little further progress in national organization is made.

Nor, on the other hand, may the beginnings of national organization be looked for in the dreary arctic wastes, where, though again a vast uniformity prevails, life is as hard as it is, by contrast, easy in the regions of equatorial forest. In the arctic barrens the always pressing, and seldom completely met, need for food, for clothes, for shelter, and for fuel, and the uniformity of the long night, coupled with extreme cold that compels inactivity and unproductiveness, require that the whole sum of human energy be expended merely for the maintenance of exist-

ence. In the Arctic the very impossibility of agriculture significantly dispossesses man from any regional hold on the land. With the exception of reindeer herds, musk-oxen, and arctic birds for food, and stone or snow blocks for winter dwellings, the land contributes but little to the support of the Eskimo, who, on the northern shores and islands of North America and the bleak coasts of Greenland, occupy the hardest of arctic environments. The chief dependence of the Eskimo is the spoil of the sea, secured by the activities of huntsmen and fishermen. Eskimo food is the flesh of fish, of seals, of walrus, and of polar bears; their fuel, oil from blubber; their clothes and summer tents are fashioned from skins, of the seal primarily; their canoes, too, are casings of such skins on a framework of bones bound together with thongs. The little wood they have for implements is drifted to them over the sea from warmer shores. As almost the whole existence of the Eskimo is bound up in the sea it is very near the literal truth to say that they have no home on the land. The capture of the various animals named compels a wandering life, for as these creatures of the sea are of different habits and habitats, and migrate with the seasons, so also must their human enemies move about in pursuit. And a wandering existence precludes accumulation of bulky property, the materials and possessions of a complexly organized life.

Essentially the same considerations apply to the nomad tribes of north Siberia, which, although they derive their sustenance in part from hunting and trapping on the land, probably lead an even more miserable and precarious existence than do the Eskimo. Ample Protection is

afforded to arctic dwellers by the barren reaches of ice and snow that mantle the land in winter, and by the impassable morasses that prevail over most of the area in summer; but this only spells isolation, denying, until recent times, even the advantages and stimulus of trade exchanges and contacts with other cultures. The arctic lands compel that all individuals shall function in the same way; they offer no occasion for the division of labour, specialization in effort, or co-ordination and organization in the direction of common affairs.

The true Desert in its utter deficiency of water and vegetation denies altogether the possibility of human existence based on its products. The Steppe Lands afford some sustenance but not enough to permit integration of their populations. The Deserts and the Steppe Lands, like the Tropical Lowlands and the Arctic Tundras, have uniformity, the one that of sand and rock waste, the other that of interminable grasslands, but these so parched by drouth that animal communities, including man and his domesticated dependants, must extend their range over wide areas in order to secure enough food for continued existence. Life is indeed easier on the treeless plains than on the arctic coasts, and harder than in the favoured areas of the tropics, so that the disproportion between Opportunity and Necessity is not so great as in the two former regions. But if Necessity is not so urgent, the totality, and particularly the variety, of Opportunity in the Steppe Lands is slight.

The dweller on the steppes is a nomad, his wealth is measured by his herds, and the preservation of his wealth means finding sustenance for the animals that compose it.

No one area will afford pasturage for any appreciable length of time, so that continual movement is necessary. The distance apart of the essential water-holes, wells, and springs increases the scope of the migrations. The steppe population is, therefore, spread thinly over wide territory. Opportunity is most fully realized and the impositions of Necessity best met by the independent existence of small groups. Human communities accordingly are reduced to their lowest units, the small tribe, and ultimately to that of the patriarch and his family. And if these small nuclei could suffice for the beginnings of a national organization, the increase in wealth by numbers of the herds that must accompany population growth would inevitably lead to dispersal, a diminishing rather than a firmer hold on the land.

Moreover, natural Protection from molestation on the steppes is meagre; neither topographic nor forest concealment is available. Hence in any encounter the stronger family, clan or tribe survives. Thus the decentralization of life develops in the dwellers on the steppes a resolute spirit of independence, and an impatience of all restraint beyond that imposed in the unit, family group. The office of sheik is an empty post in the normal life of the steppe nomad. There is ordinarily no demand for organization in greater aggregates. Only when a season of unusual drouth, or a pestilence among the cattle, threatens famine does occasion arise for concentration and concerted action of the widespread population. Then the pastoral hordes may unite for irruption into the better watered agricultural lands beyond their normal habitat.

For the enterprise of conquest the steppe environment

eminently fits the nomad warrior. Overcoming the weaker with concomitant robbery is to him an ingrained practice and virtue. Nomadic life entails mobility, the commissariat of the nomad army is self-transporting. The invasion of the agricultural lands is therefore swift and effective. The facility of the nomad conquest makes it rapid, the mould of the steppe environment on the individual makes it far-reaching in a short time. Over the conquered area, as in their grassland home, the shepherds spread themselves thinly across a wide region. The former rulers they then displace, the occupant population they exploit. As overlords they bring about political cohesion for the purpose of a systematic despoliation. Conquest for them is the tribal foray, and its accompanying pillage magnified. But there is no attachment of the conqueror to the land as long as the influence of the earlier environment persists. The Turks have only been encamped in Europe; they did not develop the land over which they for long held sway. And this has been the general story of the barbarian empires of the past, when founded by nomads. They were not organizations of national culture founded on the place. The temporary, ungeographic consolidations fell apart as the nomad rulers became weakened and enervated by the new surroundings. If, on the other hand, the invaders became assimilated in the native population, then the enduring mould of the place was asserting itself, and new groups were formed having stability and possibilities for progress in accordance with the particular environmental features that were effective in the region conquered.

It is significant to note that when the individualistic steppe nomads projected themselves into regions where

agricultural production was the basis of human existence they tended to form organized states and exercised wide dominion. This last was in accord with their earlier experience of extensive territorial life, but the organization of large aggregates of population reflects the influence of the agricultural status. Agricultural lands are, therefore, indicated as the type of region in which an indigenous national culture could also be first expected to appear.

While Deserts, as such, consist of sand and rock waste they include within their borders oases made agriculturally productive by a supply of water from underground sources. The area of an oasis is, however, usually quite limited, for the supply of life-giving water can at best be adequate for only a narrow tract, since the environmental condition of high evaporation that produces the surrounding desert does not fail to exact a large toll from the moisture of the oasis. The community which the oasis supports is, however, sedentary; it occupies continuously the place from which it secures its livelihood. Moreover, the more carefully it uses the water the greater will be its security of existence and its prosperity. The oasis economy may not tolerate the wastefulness of individual caprice. Cooperative effort and interdependence of individuals is necessary. Except, then, for the limitation of size the oasis would seem to afford suitable conditions for the initiation of nationality.[1]

Hence it may be considered entirely expectable that it was on a magnified oasis, a Desert Edge Land, that the

[1] An admirable and detailed account of the geographic and economic conditions of life in one region of oases will be found in Jean Brunhes' "Human Geography," English edition, Chicago, 1920.

first nationality known to history, Egypt, arose. In the midst of the African desert there exists a narrow, long strip of land, the flood plain of the Nile, watered by the annual rise and overflow of that river. Throughout its extent the region has a uniform climate, hot enough to make life easy in respect of the need for clothes, shelter, and fuel, yet free from the enervating atmospheric moisture of the equatorial belts. Freedom from excess humidity made increased expenditure of human energy possible in the Nile region, and it also prevented the growth of a continuous forest to obstruct and handicap man's occupation of that area. For while the plain was watered periodically, and sufficiently to permit the establishment of agriculture, it should also be noted that the period of fertility, due to the overflow of the river, was followed by a time of drouth which, while it made forest growth impossible, also imposed the necessity of supplementing the natural flushing of the land with further water from the river, at its lower stages, artificially supplied by irrigation devices.

Here, then, was a region having uniformity of climate and a single, simple condition of topography and soil; the level, fine-textured alluvium of a flood plain. On all of this area the same type of agriculture could be practised and everywhere it would be equally productive of results. Any invention or novelty in method that increased the yield could be utilized elsewhere in the domain with similar success. And there was demand for such improvements. The period of drouth following the period of growth and harvest was an incentive to accumulate as great a store as possible of corn. To maintain an irrigation system was

not within the province of a single individual's efforts, or even those of a single family, much less could an individual or family extend an irrigation system over wide areas. Co-operation was essential to successful utilization of the land.

On the other hand life on the Nile plain was simple and relatively easy. The climate imposed no great necessities. With proper care the land could be made to produce an abundance of food for a large population, without requiring for this purpose the expenditure of the total energies of the people. The deserts adjacent protected the inhabitants from marauders. Hence there was leisure to devote to the production of other things than those of mere necessity. For these commodities the cultivators could exchange their surplus corn. Each citizen, however, recognized that his neighbours and they, that their neighbours in turn, and so on, were similarly situated, that between them all there must be the common community of interests and freedom of competition that prevails within the borders of national territory. The inhabitants of the Nile plain, therefore, were a people definitely settled upon, and conscious of their occupancy of a distinctly marked out place, uniform over all its area in climate and soil and in the conditions it imposed for existence; a place where the organized efforts of those who tilled were capable of supplying the food needs of a far more numerous population than their own number, giving leisure and opportunity thus for division and specialization of labour and the production of the variety of merchandise that evokes commerce.

At this point it is pertinent to recall how generally those

lands where the establishment of agriculture is dependent on the practice of irrigation have also been the cradles of civilization and of national culture. As in Egypt, so likewise did the people of Mesopotamia, of Greece, Italy, Carthage, and of Spain under the Moors, of China, India, Tibet, and Japan, the Incas of Peru and the Pueblo Indians of the southwest of the United States, all owe something, or much, of their cultural rise to the fact that irrigation was an essential part of their husbandry, and that its practice required co-operation and organization. How the requirements of irrigation must have acted in antiquity, in stimulating the organization of human groups, is remarkably illustrated in an account[1] of irrigation societies among primitive Filipinos in modern times. These natives were found not only to be working extensive systems co-operatively, but also to be bound together for this purpose by elaborate regulations designed to insure that each worker did his part at the proper time and to safeguard each individual right in the fruits of the work.

The beginnings of national culture in Mesopotamia may not be of so early a date as that of Egypt. If not, it is to be remembered that the place was of far vaster dimensions (ten times more land was available for agriculture under irrigation) and that it was more open to foreign influences than was the desert-protected Egyptian plain. Accordingly more time was required to bring it under unit

[1] E. B. Christie, "Notes on Irrigation and Co-operative Irrigation in Ilocos Norte," *Philippine Journal of Science*, Section D, Vol. IX, 1914, No. 2, pp. 99-113. Reviewed by F. H. Newell; *Geographical Review*, March, 1916, p. 222.

organization. There was also greater diversity of environment.

The place here, as in Egypt, was an alluvial plain, similar, too, over all its extent in climatic régime and response to cultivation. But instead of the impassable, desert barrier of Egypt, the Mesopotamian area had marsh and steppe for border lands. The marshes afforded sufficient protection, at first, for the small groups that became established between them. But the marshes tended to disappear as cultivation was extended, and, even where their original dimensions persisted, they became inadequate as protective barriers when the development of the riverine lands attracted the envious eyes of the bordering steppe and mountain peoples who had, meanwhile, themselves made some progress, as a result of contact with the advanced dwellers of the plains. Thus groups that had had to rely exclusively on their war prowess for defence and aggression on the open steppe lands very shortly and very easily conquered the peaceful agricultural communities of the plains, merged with them, and established a single rule over all the large Mesopotamian area. Moreover, encouraged by their initial successes, the nomad empire of conquest was extended to Syria, Palestine, and Phœnicia. Thus, for the times, a considerable diversity of regions and peoples were brought into contact. But the national culture so established over a wide area was not a natural one—that is, one founded on place and community of interest among the peoples involved—but rather an artificial uprearing that engendered hostilities and a separatist feeling. The peoples affected learned the advantage of national unity, but were disposed to try it by themselves

and only as compassed by their own environment. The empire of the Assyrians failed to maintain itself in part, therefore, because it had been set up by force, but more because national culture had not yet advanced to the stage where considerable measure of diversity in place could be conceived as fostering identity of human interest; that is, unit nationality.

Realization of the advantages of coherence in large groups and of national culture spread westward into the Mediterranean border areas, where further diversity of habitable environment and a notable variety in national sites are encountered. Mountain, plain, and sea are there in intimate contact. As protecting barriers the desert and marsh yield to mountain ridges and oceanic expanses. The Mediterranean climate, however, is essentially uniform; sufficiently genial over the whole basin for the nurture of human groups little competent to struggle with the adversities of nature, and have a remainder of energy for the realization of more than a mere existence. Moreover, the forest was not continuous on the Mediterranean lowlands even in primitive times, though the mountains were wooded. Agriculture, as in the earlier developed nationalities, needed to depend on the practice of irrigation to insure certain and larger yields.

Of the varied national sites nevertheless available about the Mediterranean basin, despite its general uniformity of environment, those on which the Greek city-states originated are most characteristic; and the national idea, as it developed on these sites, has exerted a profound influence on the organization of the modern world. Typically the sites of the Greek city-states comprised a plain, open-

ing out on one side to the sea and closed in at the rear by an amphitheatre of mountains. The heavier rainfall of the mountains, and its slow percolation off the wooded slopes, furnished a fairly continuous and large flow to the rivers that crossed the plains and, hence, a source from which a dependable supply of water for irrigation could be had.

No one of the Greek plains, however, was large, and each of them was most effectively cut off from its neighbours by barriers of sea and mountain. This limitation in area and the compactness of each habitable site were both a handicap and an advantage to national development. These topographic factors made expansion difficult, hence precluded the co-operation of very large populations; they were of advantage in that they tended greatly to intensify national life and thus they led to an almost precocious development of national institutions. Every Greek grew up a politician. The Greek plains were sufficiently productive to afford ample sustenance, their varied natural environment gave impulse to divergences in individual life and individual ambitions, the while their occupant human groups were kept in accord by the safe enclosure and intimate contact that the definite boundaries and the compactness of the sites insured. The wise men of the Greeks argued, indeed, that the nation should not exceed in population the maximum number that could be made to hear a speaker's voice; expressing thus their realization of the unity of interest and co-operation that is at the basis of nationality.

The Romans, similarly, needed to find themselves at home over all the Italian Peninsula (a natural geographic

unit but of greater diversity in environmental conditions than the sites of the Greek states) before they began to extend their imperium to remoter territories. It is always this concept of possession, of having an origin and a permanent abiding place in some definite region of the world that is fundamental to the idea of the nation. Rome's roads focussed on Rome only. But Rome grew so large that the use of these roads could not alone suffice to link the empire into a single national structure, could not weld it into a united and coherent whole, despite the general acclaim extended to Roman rule as marked by Roman law and Roman justice. Roman civilization was only an overlay to a more fundamental realization of the environmental influences of their own home places by the peoples native to the provinces. Hence, even before the barbarian invasions, self-determination tendencies were promoting disruption in the Roman Empire. Perhaps it is not too much to say, that, having all the worth-while, known world in possession, the Romans lost their own sense of place, and hence of national unity.

Roman organization had, however, meanwhile been extended over the diverse regions of northern and western Europe—that is, beyond the Desert Edge Land into the Temperate Humid Lands; into environments different, more complex, more difficult than that of the Mediterranean basin, and further, more varied in kind. The inhabitants of the Temperate Humid Lands learned by contact with the Romans both the machinery of the state and the overcoming of nature. They had been taught how to find themselves, nationally, in their own homes when opportunity offered. Not even the turmoil of the bar-

barian invasions could deprive them of this knowledge. Moreover, the barbarian invasions were in part peaceful penetration and the invaders differed from the conquering Romans further in that they established themselves on the soil and merged themselves with the earlier inhabitants; were not overlords. The shifting of population and the consequent confusion involved by the barbarian invasions, together with the fact that the regions the newcomers were eventually to occupy permanently were diverse, meant that a long time must elapse before there could be a settling down and adjustment to place. The consolidation of Western nationalities has, accordingly, been slow, is not yet complete. In areas having a marked uniformity of environment stability was achieved earlier than elsewhere. Thus the established unity of island Britain may easily be appreciated, even though it required a long period to bring about the consolidation of highland and lowland Scotch, of Welsh, and of English, each located on a distinguishable natural region within the island. The dissent of remote Ireland is to be interpreted in the light of the earlier history of Britain. The unique solidarity of Japan suggests that given sufficient time the British island populations can also be brought into the accord of a single nationality. France has crystallized about the plain of the Paris basin. The unity of the Spanish plateau accounts for Spain; as the topographic difficulty of its western slopes explains the separate existence of Portugal. Historic remainders, an allegiance divided between a concept of temporal power in the church and a realization of place, deferred the unification of peninsular Italy. Germany, however, only recently came to understand the

significance of its varied parts adhering to, and comprising, a larger whole; and went into a frenzy because of this, its belated discovery of nationalism. The Austro-Hungarian dual monarchy comprised three well-defined units of place; the Hungarian plain, the Austrian hills, and the Bohemian plateau. Despite the artificial bond of government the peoples of these three regions would not consent that there should be a community of interests between them; that is, to the establishment of a single nationalism. The English colonies in North America had to be completely in occupation of the Atlantic seaboard of the present United States, and ready to submerge their provincial ambitions in order to achieve the advantage of community interest in a larger place, before either the Revolution or expansion westward could succeed.

Finally, a word needs to be added with reference to the significance of Tropical Uplands as possible sites for national organizations and advance. Tropical Uplands share in the diversity of products that is typical of the Temperate Humid Lands, and while they have the equability of the tropics, they are free from the great heat and moisture of the equatorial lowlands. It would seem that Tropical Uplands had, in accordance with a geographical interpretation, great possibilities of becoming important centres of nationality. But the Tropical Uplands present, rather, a spectacle of arrested development. Abyssinia is a typical example. Its history probably dates as far back as does that of Egypt, but Abyssinia appears never to have evolved a solidarity equal to that of the Nile lands. The tropical monotony of a whole year of days essentially alike, in that no Necessity for more effort in one season

than another is to be met, coupled with the Protection of inaccessibility, on account of the elevation that also made for isolation, probably account for the failure of peoples living on Tropical Uplands to make greater progress in the past. Tropical Uplands are, however, natural regions of great promise in the immediate future because their inaccessibility and isolation can be rendered ineffective through modern improvements in transportation methods.

The series of suggestions in the preceding paragraphs is intended to be indicative only of the historic sequence in which the establishment of national consciousness, as related to regions of varying physical aspect, has occurred. The argument is that nations are primarily and fundamentally adjusted to place and that national culture roots in place. This does not mean that history and economics are to be altogether superseded by geography. The diversity of place that caused Austria-Hungary of the immediate past to fly apart could well have been of minor importance if all three of the natural regions comprised in the former empire had been settled originally by a uniform group, coached for its future development by an equal degree of contact with peoples further along in national organization. Again, if the economic development of each of these areas had been equally advanced, or if their several resources were complementary and the distinctive products of each, accordingly, had been largely capable of absorption within the coalition, the story of Austria-Hungary might be different.

Geographers have been at fault in attempting to fix direct and simple cause-and-effect relationships between place and particular mental and physical modifications of

the human species; in failing to recognize the importance of origins, historical contacts and the sequence of events as partial determinants in the contemporaneous occupancy of the world. Historians and economists on the other hand have been rather unctuous in practically dismissing from consideration, in their interpretations, the influence of environment. As a basis and background of historic and economic change they seem to recognize geography only for the purpose of ignoring its function as a correlating factor. This attitude leaves the historical scholars free to follow up the interminable and, for the most part, blind gropings of the human leaders, and the effects of humanly organized institutions, without needing to be held accountable for establishing any system or order in the series of changes that constitute the historic record. And this despite the fact that there is quite conclusive evidence that place is competent to modify greatly the mental outlook, habits, and perhaps even the physical constitution of peoples, in a surprisingly short time.

The completeness of reversal in human characteristics that may be brought about by the subjection of a distinctive cultural group to environmental conditions quite the opposite of those under which the group had originally developed is well illustrated by the case of the Boers. Dutch settlers first came to South Africa as recently as 1602, their number was augmented later by French Huguenots, and from these two stocks, almost exclusively, the Boer people have been derived. In their ancestral homes the progenitors of the Boers were enterprising urban merchants, farmers accustomed to intensive cultivation of plots of land of garden size, or skilful artisans;

peoples who were, as a group, gregarious in disposition on account of the close contacts of a densely settled country, and among whom cleanliness was a second nature, and who were, as individuals, deeply appreciative of placid creature-comforts; yet within a few generations this ancestral type has been completely altered. On the semi-arid pastures of their new home the transplanted Dutch developed into uncommunicative lovers of solitude with nomad propensities. They, who had loved appurtenances, reduced household impediments to a minimum in anticipation of the next move and dispensed with all notions of cleanliness in a land where water is available in quantity only barely sufficient to quench the thirst of man and beast. In disposition, habits, and in all phases of the life they lead, the Boers are the very antithesis of their ancestors who dwelt on the moist deltaic lands of the Rhine mouths. And it would be difficult, indeed, to account for this change on any other basis than that it is due to the effects of their new environment.

Among ethnologists head form has come to be considered the most permanent of racial characteristics. Yet the investigations of Boas indicate that even head form undergoes a very rapid change when subject to the influences of a new place. The immediateness of the modification is indeed startling, and goes beyond anything that might have been postulated by a geographer in his most imaginative moments. It was found, as the result of an extended series of investigations, that the first child born in America of immigrant, East European, Hebrew parentage, typically round-headed stock, showed a marked tendency to long-headedness. A similar modification in the opposite

direction was discovered in the first American-born offspring of south Italian parents; that is, the change was from stock long-headedness toward round-headedness. The longer the parents have been in America the more marked does the change in head form of the offspring seem to be. Wide-faced Bohemians, in like manner, give birth to more narrow-faced individuals than the parents, when the nativity is American, though children of the same parents born abroad do not show this variation from the parental type.[1]

Without, then, putting too much emphasis on the significance of the particular case of the Boers, and on the change of head form in the children of immigrants; regarding these instances as indicative simply of the potency of environment to exert modifying influences; it would seem, nevertheless, a conservative enough deduction, in view of the many generations that, in each nation, must have been subjected to particular regional conditions and associations, that nationality is to be regarded primarily as a reflection of place.

[1] Dr. L. A. Hausman, of Cornell University, has developed a new technique for the microscopical examination of mammalian hair. It may be that through his work and his criteria it will be possible in the future to come at a more basic classification of human races than any now available. He finds, for example, that the structure and pigmentation of the hair of the ancient Egyptians (specimens from mummies) and that of the modern Copts is identical. (Personal Communication.)

CHAPTER IV

THE INDIVIDUAL AND THE NATION

INDIVIDUALS manifest their possession of a sense of nationality by giving expression, in one way or another, to their patriotism and their love of home. Love of home is readily enough understood and appreciated; the concept of patriotism is, however, quite difficult to define. Possibly Veblen has comprehended everything that patriotism includes in the concise phrase: "A sense of partisan solidarity in respect of prestige," [1] but this formula needs, itself, very much of elucidation.

It was suggested, in conversation, by a university professor that if a number of "worldlings" of divers nationalities were to find themselves transported to Mars, and suddenly confronted by a crowd of Martians, an "earth-born" leader would at once come to the front and call for a cheer carrying the refrain: World! World! World! and his followers would give it with enthusiasm and vim. The cry of the worldlings, then, would echo both their partisan solidarity and their love of home, independent of nationality. The Martian circumstances, in other words, would conduce quite adequately to the immediate achievement of international amity. At the crisis of the World War, with Mars similarly ascendant, complete accord in their relations with each other had

[1] T. Veblen, "The Nature of Peace," p. 31, New York, 1917.

apparently been attained by a large group of nations, but the dissonance since has become quite marked. Partisan solidarity is evidently compelled by some fundamentally important need.

It is conceivable that partisan solidarity, if long enough enforced by some great need, might beget patriotism, and once patriotism had been acquired, a desire to maintain and enhance the prestige of the group involved would, naturally enough, follow. But partisan solidarity, patriotism, and prestige of the group are all three linked up in modern thought with nationalism. Here, again, is encountered the question of the origin and basis of the national group. In respect of what the persons concerned are partisans, and how, and why the group for which prestige is desired delimits itself, is not immediately apparent.

Racial pride, heritage of a common language and literature, a particular religious belief, common economic interests, dynastic loyalty, each may indicate well-defined cleavages of mankind, as a whole, into groups. The partisan adherents of the groups made distinguishable by any one or a combination of these traits do possess a sense of solidarity and have often persuaded themselves that their compelling need for solidarity resided somehow in these attributes; hence strove for the maintenance and enhancement of the prestige of the aggregation on those grounds. But it will be sensed immediately that their several promotions were not, and could not, be manifestations of patriotism. Patriotism is a quality of nationalism, and nationality does not originate distinctively in race, or language, or economic interest, or dynastic loyalty. These

things do not compel solidarity, though many men have at various times deceived themselves into thinking that they did. It is a matter for congratulation that they were in error, for if national solidarity originated, for example, solely in the necessity for loyalty to a dynasty, or for maintaining and enlarging the economic interests only of a national group, the international situation would be even worse than it is or has been. Certainly no world harmony could then be conceived except that resulting from the possible complete domination by one group, for the particularist ambitions of the opposed communities could not be reconciled except by subjection of all to one. Not nationalism, imperialism, rather, has its roots in these things.[1]

[1] Lord Hugh Cecil in a letter to the editor of the *London Times*, published Monday, Oct. 10, 1921, and captioned "Nationalism, 'The Curse of Europe,'" says the main source of all the troubles and mischiefs which the peoples of Europe are now enduring is this kind of nationalistic spirit. He calls it an embittering and desolating sentiment. The two Jubilees of Queen Victoria were the intoxication of British nationalist triumph, and sowed, perhaps, "the seeds of jealous admiration in the mind of William II, to fructify terribly in 1914." He adds that patriotism has become the convenient cudgel of the scoundrel to batter critics dumb. He calls on the Press and educators generally to cry down this sort of nationalism.

In the very same issue of the *Times* (the antidote must be administered before the poison can have time to act!) is a long editorial pooh-poohing Hugh Cecil's contentions in the fashion characteristic of the nationalistic Press the world over. "But we cannot believe that anything substantial will be gained by decrying an instinct which, in many parts of Europe, has only just won the opportunity to express itself. Upon it, and not upon its negation, the future must be constructed." Not a word in favour of the different type of nationalism that Hugh Cecil urges. And if this

The mental reaction imputed to the group of divers nationalists transposed to Mars has happier connotations. It implies that in the end partisan solidarity of the national type may be referred back to place. Whether or not this implication is accepted as a correct interpretation of the basis of nationality, it would probably be admitted generally that if patriotism does originate in place, patriotism may be fostered and intensified without fear of initiating a series of sinister developments; as would almost certainly be the case if the factors that really promote imperialism were, instead, at the root of nationalism, and of the patriotism that nationalism engenders. If, further, the idea, that patriotism is the expression of enthusiasm for nationality founded on place can be promulgated widely, progress in the direction of world concord will be greatly facilitated.

The advance of civilization can be materially hampered through the disaster of war only as disputes arise between organized nations possessing modern industrial equipment. If not compelled to desist by the threats of a similarly equipped competitor, or competitors, any one of the nations in which machine industry and modern technology are fully utilized can coerce a backward people. A barbarian horde, on the other hand, however numerous it might be, could not, in these days, overwhelm, in armed conflict, even the weakest of the industrially organized

were not enough to counteract the virus, another editorial follows immediately, entitled "In Memory of Ypres," commending Lord French's appeal for the organization of a Ypres League, lauding British valour, and with reference, in quotation marks, to the "contemptible little army." Verily, the chauvinistic idea of nationalism will die hard and the Press will do most and longest to keep it alive!

groups. Only in recent times, however, have these relations obtained. When Rome fought the barbarians, and in the ancient wars of empire, the opposing forces were substantially on a par with each other as to armament. Victories, then, were won either because of superiority in numbers, greater military skill, or better organization. In modern times superiority in material equipment and technology is much more portentous than greater numbers in waging war, and it is scarcely conceivable that any backward group would excel in organization or in military skill. Accordingly it may be assumed that civilization today can not be destroyed from without.

On the other hand, it is curiously true that armed conflict between the industrially advanced nations can develop out of contentions which originate in false conceptions of the basis of nationality and the occasion for patriotism. Much group action is still motivated by historic, perhaps even instinctive, human obsessions, constituted of misinterpreted or, in any event, obsolete loyalties. These things comprise misunderstandings of the present order, are unreasoning reactions that result from the persistence of the conviction that outworn, but at one time serviceable, relationships still retain their effectiveness and require to be preserved. The individual believes, or is led to believe, that his self-interest and that of his intimates continues to be served by these relationships and that these constitute the bond of nationality.

More deeply ingrained than any other, and fundamental to all the rest of these blemishes, as they must now be considered, is the instinct for solidarity that animated the primitive herd. It was probably only as he organized into

a tribe or horde that primitive man survived. In the realization by men, in early times, of the necessity for group solidarity in the actual business of securing a livelihood and in providing a defence against aggression, the patriotic animus had its origins. Physical fitness then was the prime virtue; the survival, success, and prestige of the group depended solely on the degree of physical competence possessed by its individual members. The fact that athletic feats, even now, win more enthusiastic applause than does intellectual achievement (though at the same time settlement of differences between individuals by violence is deplored and repressed) suggests how deeply the concept of physical prowess as an admirable trait became ingrained, and how long continued must have been its need.

The normal condition of the wandering tribe is that of very slight margin of procurement or production of food over subsistence, and no means for preservation of a surplus, when occasionally an oversupply may be available. Unusual success in the hunt merely spells an opportunity for the group to indulge in a gorge. The change to sedentary existence accompanying the development of agriculture, involving as it does the permanent occupation of one place, makes accumulation of property possible; the margin of production over subsistence grows wider, and ownership of property by the individual becomes feasible. The solidarity of the group then needs to be maintained as a defence against aggression by rival communities, but, as related to competition within the group, the greater capability of the individual no longer serves the group interest, and, from the stage of attainment of dependence on agri-

culture onward, has never done so, except in the case of those few persons who have devoted their energies in various ages to altruistic labours. (Here it should be emphasized that innate difference in ability among human individuals must be recognized and accepted, else the threat to civilization of international violence may be eliminated only to disclose in its stead danger of internal upheavals, brought about by class strife. On the rock of inequality of human capacity all socialistic and communistic schemes of society must inevitably break. Equality of opportunity at birth, or even up to the beginning of mature life, may some day be achieved, but after that the individual must be left free to develop his own fortunes in competition with his generation. It may even be possible to restrain the competent individuals from combining, to the disadvantage of the less capable majority; but as for this majority combining to make ineffective the superior endowments of the few, that can only result in general deterioration, in failure of all human advancement.)

The herd animus, true patriotism in the primitive communal life of the hunter tribe, and retained as a serviceable trait in the interests of group defence, has also, however, in every stage of advance in civilization, since the first establishment of the agricultural settlement, been utilized for a great variety of other ends; but invariably, it would seem, to the disadvantage of human welfare as a whole and often indeed to the discomfiture of the group, and, if not that, at least only to serve the interests of a particular class in the group, altogether disproportionately to the degree in which it was of benefit to the majority.

A sufficient defence very easily develops into power for

offence and aggression. No sooner has a group found itself securely seated in its own domain but that a will to conquest has made itself manifest. So long as the slave status was considered a natural condition of mankind, the normal fate of at least part of any group that had been conquered, war may have been profitable to the victorious people as a whole; they got slaves to perform their laborious toil. Private property under those circumstances was, of course, also appropriated as the conquerors saw fit. The Romans managed this sort of thing on the grandest scale, and perhaps most successfully. The city of Rome was a centre toward which all the wealth of the world was drawn. The proletariat at Rome got food and games, the leaders, vast estates and slaves by thousands. There was no reverse current of goods. From Rome went out only government; peace, order, security. But their complete subversion of productive activity to a slave estate contributed to the undoing of the Romans; it consumed the material world they ruled and at the same time sapped Roman virtue.

The Romans had no hesitation in enslaving peoples substantially their equals in culture, and it required a moral revolt, extending through all the eighteenth and nineteenth centuries, to put enslavement of backward peoples, as an institution, completely under the ban by Western civilization. Hence slavery is not to be regarded as an institution of the so remote past in the history of mankind as to be incapable of revival. In fact the policy of the Germans in their colonies and their systematic looting of Belgium had much to do with the world-wide resistance their onset aroused; for it could readily be believed that,

victorious, the Germans would attempt to dominate the world after the manner of the Romans. But even the Germans would probably have appreciated the ultimate futility of so thoroughgoing subjugation as was the custom of the Romans, if indeed that could ever have been brought about under modern conditions. At worst the German management would have been in the nature of exploiting the world as an estate, governing, levying tribute and taxes, and regulating commerce and trade in their own interest. Under that kind of régime the complex mechanism of modern world production and exchange must inevitably have been rendered progressively less and less efficient, and at a far more rapid rate than would have resulted from its application in Roman times. It may be doubted whether complete subjugation of an industrially organized people would be possible without destroying its productive capacity. Accordingly, domination could not be made to pay its cost, let alone any possibility of its enriching the whole group of the conquerors. The plight of the Allies in endeavouring to collect reparations, only, from defeated Germany makes sufficiently clear how impossible any profit from conquest would be.

It does appear, however, that the herd animus, the primitive patriotism that still makes itself manifest in the willingness of the individual to engage in physical combat for the sake of the group, and has been inherited in this phase from the tribal stage, is still a serviceable trait. Its disserviceability is not inherent, but is owing to the fact that this trait has supplied an easy means, long utilized by unscrupulous *protocracies*,[1] to gain their selfish

[1] A word used by F. H. Giddings in his book, "The Responsible

ends. The situation is paradoxical. Primitive patriotism is a national virtue because there must be group defence against enemy invasion. But armed aggression is only possible for groups maintaining organized forces. Yet conquest, except it is carried out to the extent of enslavement of subjugated peoples, can not result in any immediate, not to say permanent, advantage of the mass of the population comprising the conquering group. But armed aggression would not persist as a disturber of world peace except as some interest is served, and, as long as that is true, such interest will be tempted to use force to gain its ends. Therefore, not being "too proud to fight" is still a serviceable instinct, because it provides for resistance to aggression by an alien group, instigated by interests in that group which will gain by success in the enterprise of conquest.[1]

The interests which can use a serviceable patriotism for purposes that are its own undoing must be of a dominant kind, hence dynastic or capitalistic. How effectively the herd instinct for union in armed defence can be utilized to further dynastic ambitions is remarkably illustrated in the case of Germany. The circumstances of the upbuilding of the German Army, and the ultimate

State" (Boston, 1918), to designate "our leading citizens" of all times.

[1] China, lacking men and guns to enforce her demands, was compelled to submit at the Disarmament Conference(!), Jan. 5, 1922, to tariff conditions fixed by other nations. She asked for a 12.5 per cent import duty, for revenue purposes; the nations assembled to promote international peace would grant no more than the 5 per cent in force before the conference met. But the other nations charge from 30 to 50 per cent duties on Chinese goods that enter their countries.

attempt to use it to achieve domination of the world in the interest of the Prussian protocracy, have been set forth concisely by Nicolai, and the recital deserves more attention than it seems to have received in discussions of the war. Nicolai [1] points out, first of all, that national armies are superior to professional soldiers. In proof he cites a long list of examples throughout the course of history, thus the success of the Theban militia at Leuktra in 371 B.C.; of the citizen defenders of Orléans, of the American militia at Saratoga. Not that the professional soldier is less competent; the difference is in the spirit that animates the army. The actual business of being a soldier, even an officer, is quickly taught, Nicolai argues; as has been, indeed, amply demonstrated during the late war. But it has also long been realized that a true militia is only suitable for defensive warfare. Hence it was that armies of professional soldiers, recruited by choice from beyond the borders of a country, were in the past preferred by rulers generally. This was particularly true in Prussia. Frederick William I's army was small and consisted wholly of mercenaries. He enforced, also, a very strict distinction between officers and common soldiers; the latter were to be recruited only from among foreigners and the dregs of his own people. For the common soldiers Frederick William I had a profound contempt, and he discouraged all idea of a militia. The people of Prussia were led to acquiesce in the maintenance of a purely professional army (which could be used for any purpose that Frederick saw fit, as opposed to a home-recruited

[1] G. F. Nicolai, "The Biology of War," pp. 214-249, New York, 1918.

army that might prove dangerous on occasion) by being made to share the ruler's contempt for the common soldier. Very few of the people could hope to be officers; to be a common soldier was disgraceful. It is the more remarkable, therefore, that the same dynasty, while managing to maintain the sharp distinction between officer and soldier down to the fateful year 1914 (it has been impossible for a Prussian soldier since Frederick's time to become an officer) was yet able to develop a national army with national patriotism, made up of such common soldiers.

The first step in bringing about the necessary change in the attitude of the public was accomplished in 1813. There was then need of greatly increased forces for the defence of the country, and a militia, based on universal liability to serve, was organized. The military authorities, however, were to have a voice in the appointment of officers. It was understood, on the other hand, that the men were not to be called up until the enemy was actually advancing over the frontier and even the militia units were, in each case, to be employed only in their home provinces. But the king and his military advisers very shortly contrived to circumvent this purely defensive purpose of the militia by issuing new regulations in which it was set forth that the militia might be employed "outside their own *district.*" This change was accepted readily enough, because it was popularly interpreted to mean only that a company could be used anywhere in its own native *province;* but, as was afterwards made clear, France and the rest of the world are outside a particular district as well as are other parts of a province! It was

also decreed that the militia was subject to the discipline of the standing army, making farcical the election of officers by the soldiers. Hence it is not surprising to learn that when Blücher crossed the Rhine on January 1, 1814, there were seven thousand militiamen in his first army corps.

Once the government realized that the militia could be utilized to increase the army proper, the next business was to get rid of the idea that the militia had been created simply as a war expedient. It was intimated, therefore, that the nation desired the preservation of the militia institution, and a new law was promulgated disbanding the militia in time of peace, indeed, but retaining the principle of compulsory service and the added frank declaration that the first line militia troops might be employed abroad. Reservists from the regular army were, moreover, consigned to the militia, thus linking up the two institutions; and their uniforms were also made similar.

Accordingly, when Napoleon was, for a second time, on the throne of France, the militia was immediately called up and sent abroad. After that campaign the militia was not even entirely disbanded; the staff officers and about fifty men from each regiment were retained in service. This number was gradually increased with the years. When, after a period, this system caused the militia to become conspicuously large, its number was reduced and the discharged militia soldiers were assimilated into the regular army. After the public had become accustomed to any one such change, the militia, in turn, was again built up. A particular device in this connection was to create new militia regiments without increasing for the

moment the actual number of troops in service. Thus three regiments, made up of four battalions each, would be converted into four regiments of three battalions each. Then, after a time, these small regiments would be declared unsuitable for active service and men called up to fill out the missing battalions. By such manœuvring the Prussian Government, as early as 1821, could muster some 362,000 troops, most of which could be used for offensive service. After the 1850 mobilization a further large increase in the standing army was made by recourse to the militia supply, another similarly in 1871, and still another after 1871. The system by 1914 had finally been so far developed as to permit of the use of last line troops, so-called, in attacking the enemy abroad.

It appears, therefore, that the transition from a "contemptible" army to a national army was very adroitly managed. Beginning with a mercenary standing army made up of common soldiers, despised alike by rulers and people, there followed next a citizens' militia organized for defence of its native soil, hence commanding the respect of the populace. When this militia organization had been shrewdly linked and merged into the standing army the time was ripe for the development of a huge national army. Once this had been established it was relatively easy to carry on the progressive enlargement of the army as a national institution and to promote its prestige among the populace. Thus, eventually, the ultimate German military machine was created in monstrous efficiency—as military machines go.

The nationalistic militarism of Prussia and Germany in the service of a dynastic interest is admittedly an

extreme case, but only, therefore, the more significant in that it illustrates the degree to which the primitive patriotic instinct may be perverted. If in the end the patriots frankly avowed their purpose to expand by force, it was also true that it had only been possible to build up the means for aggression by resort to the specious plea of defensive needs. It is also worth noting how easily the military organization, once created, developed an alien loyalty, that to the master it served, in distinction from the true loyalty it owed to the people and place that comprised the nation. In other words it learned to serve the state, or the special interests that were dominant in the government. Thus, as early as 1848, it was perfectly feasible to use the German militiamen against their own fellow-citizens, so effectively indeed, that it was hardly necessary to resort to the expedient of using troops from remote districts to quell local revolts in bloody fashion.[1]

Nor is this diseased patriotism or, better, state nationalism confined to armies only. It infects practically all national thinking and is the occasion for the appraisal of the patriotic animus as a disserviceable trait in modern civilization. Due to such perversion the average citizen acquires, or is habituated to, the idea that his warlike patriotic impulses should be stirred by a variety of other considerations than that of the actual defence of the home on which it rests, from which it sprung, and which it truly serves. In the monarchical states these considerations come almost wholly within the sphere of the enhancement of dynastic prestige and the imperialism in which, almost solely, that prestige can hope to find scope

[1] Nicolai, *op. cit.*, pp. 244-245.

for enhancement. This is putting it a bit narrowly, but it comes to the same thing in the end if more broadly viewed.

As has been suggested earlier, short of actual enslavement of the subjugated it may be doubted whether any enterprise of conquest and expansion by force is of any material advantage to the average citizen of the conquering nation; that is, even if it is admitted that the possible gain is only for those who survive the conflict. If that is the case it follows that territory, however acquired, if administered more liberally than a plantation colony, must of necessity cost more to govern than it returns in revenue. This does not mean that individuals from among the ruling nationality do not profit, for they do. The India Service provides a multitude of posts for the sons of the nobility, the gentleman-investor class of England, to say nothing of minor positions that lesser lights may secure. Something of the same kind applies to the American occupation of the Philippines. Trade interests are similarly affected. In some measure trade does follow the flag and exceptional business opportunities are afforded to individuals. But the sum of gains obtained by these persons is usually altogether disproportionate to the great total which the nation as a whole pays for upkeep of the governmental agencies needed to safeguard the business enterprises, to say nothing of the cost in blood and lives if, incidentally, war results from efforts to expand territorial trade. As Veblen [1] puts it: "India is wanted and held, not for tribute or revenue to be paid into the Imperial treasury, nor even for exclusive trade privileges

[1] T. Veblen, "The Nature of Peace," p. 125, New York, 1917.

or preferences, but mainly as a preserve to provide official occupation and emoluments for British gentlemen not otherwise occupied or provided for; and secondarily as a means of safeguarding lucrative British investments; that is to say, investments by British capitalists of high and low degree." That is not the whole story but is a significant part.

In the monarchical states, the dynastic interests, in the democratic states, the capitalistic interests, accordingly, may profit directly by territorial expansion, but this only at a net loss to the larger group of which they are a part. It should be sufficiently evident to the common man that this is the case. Nevertheless he allows his primitively acquired patriotic instincts to be exploited in furtherance of such projects, and to his own detriment. Why is this so?

Primarily because man is so constituted that he tends to arrogate to himself, although his is only a vicarious part, some modicum of psychic income as a by-product dividend resulting from national enterprise. In effect this psychic income is scarcely more than an unsubstantial reflection of the material gains enjoyed at his cost by the privileged classes. But the common man finds occasion for personal complacency in the size of the empire, the splendour of its court, the number of ships in the navy, the volume of trade, in everything that may be made the subject of disparaging comparison with some other people. If his country is small he finds consolation, perhaps, in its glorious past or in its distinctive culture. It is this sort of patriotism that makes him jealous of the "national honour." If his fellow-citizens,

travellers or traders in foreign parts, are given slight consideration; if their property is misappropriated or the national emblem is treated with disrespect, the common man will be aggrieved and resentful, for these are occurrences that do injury to national honour. It may indeed be necessary to call especial attention to the hurt and even to explain it and enlarge upon it through newspaper propaganda, but the average citizen will be sufficiently sensible that he is personally concerned once he understands that there has been such an affront. Then he will demand that the offending people make amends through their official representatives, specifically that they yield to the superior prestige of his nation by making ceremonial acknowledgment of the fault and apology for the misguided hardihood that made possible its commission. He wants a backdown on the part of the offender, and failing to get this is willing that the matter should be made an occasion for war.

All this could be elucidated in greater detail, but will be well enough understood from what has been said. On the other hand, it is not to be inferred that the desire of the average citizen for the vindication of the national honour rests wholly on impersonal considerations. He hopes, dimly, perhaps, yet hopes, that he may some time be advantaged by the national prestige. Thus, if he should have occasion to travel abroad, he feels that its undimmed lustre may get for him consideration and privilege denied to other nationals. Upholding the national prestige is, in this connection, something akin to giving tips, in that it is paying for a preferential service seldom received. Or territorial expansion may suggest to the common man the

possibility of appointment to an official post. The profit-seeking activities of traders operating in foreign parts under national protection may be interpreted by him only as enterprises offering possibilities of jobs to the disadvantage of other nationals. And some few of his number may realize opportunities of these several sorts but not in enough cases to make it at all worth the common man's while to prostitute his patriotism for so remote ends.

Manifestations of the aggressive phase of patriotic origins are specious, and must be found fault with because they no longer serve the general good. Advancement of civilization requires that the aggressive survival in patriotism be suppressed. That proposals for concurrent disarmament are received with approval by peoples who were formerly only concerned in how far theirs could be made a superior martial equipment is eloquent of a great change in prevailing opinion, and one that is to be encouraged. But it should not be overlooked that under modern conditions manifestations of the aggressive element in patriotic origins are to be regarded merely as a fungal outgrowth, fostered by the few for their selfish ends, on the sturdy trunk of a serviceable, defensive patriotism which is rooted in the soil.

Once the agricultural status has been attained and a human group has found the basic element of its cohesion to consist in its having established and being desirous of maintaining a permanent habitat, the most urgent demand that is put upon the patriotism of the members of the group is that they shall be willing to co-operate for the common defence. There is, however, this difference between the defensive patriotism of the hunter-tribe group

and that of the group united by agricultural occupation of a given region; the hunting tribe strives only to defend its members from harm, the agriculturists seek further to protect their lands and their homes from being wasted by an alien group. National patriotism, therefore, is ultimately an expression of neighbourliness, and as such is capable of development along other lines than those of defence. So conceived patriotism is free of any invidious element, hence is indefinitely extensible with regard to territorial spread, and is conducive to amity as between different peoples occupying adjacent regions. Place patriotism founded on the defensive element in the original patriotic instinct is capable of preserving local peculiarities of culture, of use and of wont, yet can view with tolerance the dissimilar habits and customs of other folk differently situated.

The degree in which modern, national patriotism rests on the neighbourly relation is not immediately appreciated. In any given community there is a sense of association and of co-ordinated interests that arises from mere physical juxtaposition. This neighbourliness is, therefore, altogether a place phenomenon. The mutual animosity which marks the normal relations of savage and even barbarous tribes may, on the other hand, be ascribed in large part to the complete lack of any neighbourly contact between such groups. That modern nations are less unfriendly and that so much larger groups, numerically and in extent of territory occupied, now exist as nationally organized units is an expression of the increasing frequency and variety of human contacts that modern facilities of transportation and communication afford.

Except for political agitation it may indeed be doubted whether even international animosities would long survive. Certainly near-adjacent communities, living on opposite sides of an artificially marked, international boundary line, do not cherish any special hostility for each other, except as this is fomented by authoritative pronouncement and the irritations that the ungeographical boundary demarcation itself occasions, in that it introduces a variety of difficulties to the human and commercial intercourse that, nevertheless, extends across the line.

Since patriotism ultimately resides in the individual it will serve to fix attention upon any one resident in a community and to consider his relations with his neighbours in order to note how these are the source of national solidarity. No matter whether this man is found in the city, in a country village, or on the farm he will have certain interests in common with those who adjoin him in residence. As suits the place it may be the janitorial service of an apartment, the matter of street-paving, the volunteer fire department or the drainage of a tract of lowland, that makes neighbourly co-operation essential, and thereby establishes a contact which involves joint effort in promotion of the general well-being. While the nature of the neighbourhood problems will vary with the place and the time, the general result in each event is that those whom these problems bring into contact must have an interest in each other's welfare. Thus there develops a neighbourhood loyalty, discerning any possible detriment that may come to the locality through the manœuvres of outsiders, and quick to take measures to stop such attempts. If this loyalty does not stimulate

constructive action in like degree to that with which it brings about united protest against any harmful project it is in this respect only analogous to national patriotism. The co-operating neighbours are the modern representatives of the restricted primitive tribal unit which fought to defend the group from aggression, or to maintain the common prestige, or laboured at the production of community goods. The individual members in each instance were best serving themselves by contributing their energies to the success of joint efforts. Then, as now, community of interest makes patriotism a serviceable trait, the mark of consciousness of kind.[1]

It may be objected that while neighbourhood loyalty no doubt exists, it has nothing to do with national patriotism, the loyalty of the individual to the nation as a whole. Hence it will be permissible to interject here a concrete example of the neighbourhood spirit as related to what is considered to be the ultimate expression of national patriotism; that is, the willingness of the individual to risk his life in war. Incidentally to a description of the capture of the St. Quentin Canal on September 29, 1918, by the 27th Division, made up of New York state troops,

[1] Neighbourhood loyalty finds its most ideal expression in "college spirit," as was pointed out by Dr. H. N. MacCracken, President of Vassar College, in an interview published Oct. 15, 1921, *New York Times*. And by means of the local alumni associations of each institution and through the many intercollegiate contacts of both graduate and undergraduate organizations the "college neighbourhood" is spreading a web that radiates from numerous centres over all the continent of North America south to the Mexican border. This web has already many strands and will very shortly bind together the multitudinous regional neighbourhoods that comprise the United States and Canada in a close-woven net.

Senator Wadsworth [1] urges the territorialization of the American Army in the future as a means of raising morale and increasing the corps spirit, and quotes the division commander, Major-General O'Ryan, as saying that: "In his judgment, had not his infantry and machine-gun units possessed that locality pride, in addition to their American pride and patriotism, that sympathetic touch of elbow, that teamwork that comes from long acquaintance of men in the ranks who came from the same town or the same street in a great city, they could not have performed the task assigned to them." This evidence of the import of neighbourliness with reference to warlike enterprise is especially to the point in that the utterance was wholly unstudied with regard to any elucidation of the nature of patriotism.

Every neighbourhood is a distinct entity and has well-marked borderlands. The boundaries, however, are not sharply drawn lines. They occur, rather, as a series of intergradations of community interest. Hence within a nation there is no complete breaking off, there exist no absolute gaps in the neighbourly contacts of one group with others. At the two ends of the national territory the community interest may be entirely disparate, but in between there is a continuous linking up of region with region, not abrupt transitions. Each citizen in the nation is influenced to some extent by the opinions of his immediate neighbours; these in turn by their neighbours, so that public opinion is only the collective expression of the neighbourliness of the whole nation. That one kind of neighbourliness and one kind of public opinion ends and

[1] *New York Times*, p. 6, col. 2, Jan. 29, 1919.

another begins at a national boundary line is due primarily to the supreme interest of politicians, as a class, in maintaining the *status quo* of the sovereign state. If less attention in government were given to foreign relations and more to securing, for the nation's citizens, individual freedom and equality of opportunity; if public opinion concerned itself more generally with the development of national resources rather than with the competition of other states, physical delimitations of national territory would lose much of their present significance, and the friction that mars international relations, expressive simply of a magnified neighbourhood feud, would tend to disappear.

Coupled up with the patriotism of place, that finds its expression in neighbourly co-operation, is the similarly place-rooted instinct that is designated by the phrase love-of-home. A great majority of all national anthems and patriotic songs refer to the homeland, fatherland in endearing terms; here again linking up the originally tribal with the modern place-group association. There is much more to this home instinct than mere sentiment. Long exposure to a given set of environmental conditions establishes a completeness of habituation that in some instances approaches essentiality to being. It is on account of this that the seemingly insignificant change that results from the complete obliteration of a village to provide for a city reservoir site is, in its effect on the lives of those resident in that village, akin to a tragedy. The order of those persons' lives is altogether upset. The re-establishment of the village on some near-by place will not serve to restore the situation. The same relative posi-

tion of each inhabitant in respect of his erstwhile neighbours can not be duplicated under the new conditions, many individuals must find themselves at loose ends as regards occupation, old associates, former diversions. It would be interesting to make a study of the fates of the persons suffering such a change. Almost certainly there would be revealed a degree of intimate place connection that is little suspected or understood.

When the individual leaves the home place, whether from choice or unwillingly, he suffers similarly. He is then subject to a constant irritation by new things and new conditions. Even when returning from a vacation trip there is a great satisfaction at settling back into the ordered home life once more. The foreigner is resented not because of his race, his religion, habits, clothes, *per se,* but because they are different from those to which the native is accustomed. It follows from this that there is little danger of particular national traits becoming obsolete because of the development of international amity. The ruts of provincial habit and custom are too deep to be so easily effaced. As a man can be loyal to his family and yet be a good citizen, so also can the nationalist patriot preserve his allegiance to country and group while yet supporting the cause of international goodwill, the supersovereignty of a society of nations.

It is unlikely, to be sure, that any individual could be roused to great patriotic fervour in behalf of a league of nations, nor would there be any organized propaganda to bring such a sentiment to an emotional pitch. Neither would there be any need for such feeling. No special interest would need to be served, could be served, if a

thoroughgoing international régime were in force, hence the abatement of international animosities would be permitted. Plenty of recruits are available for the position of policeman in national communities and the police on the whole do their work efficiently. A policeman enjoys a certain prestige. An international policeman would be vested with a superior degree of that prestige; might, indeed, be quite a personage wherever encountered. Accordingly there would seem to be no difficulty in providing the element of force necessary to insure order in the international domain.

On the other hand it is more than probable that, with security of life and possessions guaranteed, and attention no longer directed to international rivalries, the individual might be encouraged to a much more intensive love of country and home than now prevails. His political instincts would, under those circumstances, find greatest opportunity for expression in local-community interests. From this would result emulation between group and group, based on comparison of achievement. Each community would strive to preserve what was most distinctive and best in its life and to eliminate that which was detrimental. In large measure, emulation of this kind does prevail in the United States today, between city and city, state and state. The New Yorker is no less loyal to his native state because he does not desire that it shall have advantage, gain, or prestige at the expense of the people of Pennsylvania. And this, it may be hoped, will some day also be the relation between nation and nation. Each group will then recognize itself to consist of a regional association, and to this one association only will

its individual members owe loyalty; but this loyalty will not prevent either the group as a whole or its members from meeting and treating in amity with the organizations or the inhabitants of other lands.

CHAPTER V

INTERNATIONAL ANARCHY VS. INTERNATIONAL AMITY

ONCE, when the race was very young, all men may have dwelt together amicably. Weapons fashioned at the beginning of the Stone Age were, all of them, so small that they could not have been very serviceable in encounters between human beings. This fact is cited [1] as significant evidence that early man congregated in hordes and that there was no antagonism either between individuals or between groups of men. No greater skill would have been required to make weapons of a larger sort had there been need for them. On the other hand, since man, the animal, lacks horns, hoofs, claws, fangs, poison glands, or a hard outer shell, and is, therefore, as an individual very poorly equipped for defending himself, it may be deduced that the fact of the survival of the species in itself indicates the existence of organized bands of mankind at a very early date.

Yet it seems to be clearly established that practically all the savage and barbarous tribes known to history, and those which still exist, have been, and are, hostile to other communities of like cultural status with which they come in contact. Insistence by individuals on possession and

[1] W. J. Perry, "War and Civilization," *Bulletin of the John Rylands Library*, Vol. IV, Nos. 3-4, Feb.-July. Also *Idem*, "Peaceable Habits of Primitive Communities," *Hibbert Journal*, p. 33, Oct., 1917.

monopoly of the services of one or more women seems to have been the particular eventuality, in the history of the race, that led to the breaking up of the originally gregarious horde into smaller units. But as the women and children of a single family group, so created, would, in the absence of the husband and father on hunting trips, be altogether incapable of warding off any solitary male who chanced their way, or, indeed, of protecting themselves from other dangers, it seems probable that the cleavage of the family from the horde was followed almost immediately by the development of tribal organization. Each tribal group included a number of males bound together by blood kinship, dominated by the eldest; and practically all savage tribes today are patriarchal associations. That descent seems to be traced, often, on the matriarchal side, in existing savage societies, only indicates, as Maine[1] suggests, "that circumstances long prevented savage men from discovering and recognizing paternity, which is a matter of inference, as opposed to maternity, which is a matter of observation." In the tribe the strongest or wisest male rules. Within the group actual or nominal kinship is the basis of tolerance, goodwill, and co-operation; but when members of two different patriarchal groups meet it is as foes, commonly indeed, as rival cannibal hunters; for those who succumb in intertribal wars become the quarry and meal of the victors. To quote a savage chieftain: "When I have killed an enemy it is better to eat him than to let him go to waste."[2]

[1] H. S. Maine, "Early Law and Custom," p. 202, London, 1901.

[2] W. G. Summer, "Folkways," p. 331, Boston, 1907. Quoted from Spix and Martins, "Reise in Brasilien, 1817-1820," München, 1831.

Cherchez la femme is held to explain the first split in the general amity of human relationships. Quite literally, too, her case is responsible for the dissension that has continued ever since. For the woman, in this original instance, represented both property and the idea of domination which, together, have moved peoples to make war on each other from then until now. The early, small, patriarchal groups so far lost friendly contact with one another that the members of one tribe developed physical antagonisms for those of another. The progress of man from the stage of the patriarchal tribe to present-day organization finds one measure in the very much greater numerical strength of the groups within which mutual goodwill now prevails. The tribe, in other words, has been expanded into the size of a nation. On the other hand, while the units themselves have attained a much greater size than that of the primitive clan, the sense of group identity and the manifestation of group prejudices persist in only little abated vigour. The relatively amiable intercourse that has developed between some of these larger national units does mark progress in the breaking down of intergroup repulsion. But the process has worked very slowly. For a variety of indications of distrust and ill-will, coupled with all sorts of obstructions to the free exchange of ideas and of goods, are immediately apparent in any area where one large modern group comes in contact with another, even in times of peace. Written and unwritten law insists that there shall be no more intimate merging of the peoples or interests of the differing groups than is demanded by the exigencies of their several circumstances. And this despite the fact that each ad-

vance in understanding between groups and nations has promoted the welfare of the communities participating in it, and of the world as a whole. From the day of the slave-wife, struggle for economic advantage has kept peoples apart, the while, paradoxically enough, it has been from increased sharing and interchanges of economic possessions that they have profited most, and been brought into friendly contact to their mutual advantage.

In fact the desire, and often the acute need, of each group to possess itself of goods owned or produced by neighbouring units is perhaps the one sufficiently potent factor that has prevented an almost hermit-like isolation of peoples, which would almost certainly have resulted if intergroup repulsions had in no way been counteracted. When primitive men met as foes they could, probably, in most instances have each withdrawn and so avoided conflict, and they might have done this except for the fact that the enemy's carcass would supply a meal and his females add variety to the home supply. With some advance in culture, and the consequently greater extent of tribal possessions, raids continued to be a convenient means for securing the stock of a neighbouring group, and military prowess, coupled with tribal loyalty, came to be regarded as superior virtues. War was obviously the way to get something for nothing. The fact that individuals of the successful group (as well as of the vanquished) lost their lives in the encounters seems ever to have been held of little account; after all, these were dead and had no further interest in the proceedings. There can be no mistake about this, for, except as each soldier expects to survive, modern wars would not be possible. If all the

host that suffer death in each great war could have known before the struggle began that they were doomed to succumb it may be doubted whether any motive or force could have coerced most of the victims to participate in the hostilities.

Though the dead were eliminated from the reckoning, it must, nevertheless, have dawned on human intelligence at some time in its primitive evolution that while success in war meant survival and advantage for the group, war was, after all, a wasteful method of acquisition and that, especially if the contestants were rather evenly matched, the losses both in men and material were apt to be unduly heavy even for the ultimately victorious; so greatly so, in fact, as to make offensive forays enterprises from which it was quite dubious whether any gain would result.

Owing to considerations of this nature, probably, primitive barter and exchange were first initiated. Certain possessions of a neighbouring group continued to be eminently desirable, though the risk of their possible acquirement by force was ordinarily found to be too great. There developed, accordingly, an alternation or combination of war and trade relations, which, in the crudity and naïveté of their application by primitive peoples, or in early history, may seem curious, but which, with refinements and various circumlocutions, continue, indeed, to be practised between nations today.

It is related that exchanges of commodities between certain African tribes are made while both parties to the trade hold their weapons poised for any eventuality. Herodotus is responsible for the statement that, when dealing with the natives of the northwest African coast, the

Carthaginians first announced their presence by columns of smoke, then exposed their goods on the shore and retired again to their ships. After seeing the foreign traders safely away the natives would emerge from concealment, inspect the offered wares, and place beside them what they were willing to give in exchange. Several visits and retirements might need to be made, with additions and subtractions by each party, before a satisfactory trade could be effected; but personal contacts between members of the two groups were thus avoided. That the natives were entirely warranted in adopting these precautions is indicated by the procedure of the Phœnician forerunners of the Carthaginians when on their combined trading and plundering expeditions. But even the Phœnicians had learned that to murder and plunder was equivalent to killing the goose of the golden eggs; that it paid better to make repeated exchanges with the alien and unfriendly tribes they encountered than to kill or enslave the savages and take all their substance at the first juncture. Deposit barter, accordingly, got quite a vogue, and is still practised between primitive peoples in remote parts of the world.

The immediate effect of any initial establishment of trading relations between tribes that had each, hitherto, depended entirely on their own efforts to secure a livelihood and primitive appurtenances by engaging in hunting, fishing, and the collection of a variety of mineral and wild vegetable products and had, in such pursuits, followed a drifting, nomadic existence, was, probably, to make more real and significant the concept of tribal possession and dominion over a certain territory. The clan-grounded,

instinctive hostility to, and repulsion for, the stranger group coupled with an, also very primitively acquired, understanding of the necessity of preventing alien encroachment on the sources of the food supply of the group, had previously supplied a motive, not very well defined, perhaps, but yet strong enough to bring about combats when any tribe trespassed on country beyond its customary range. When, however, through the institution of barter, it was realized further that the regional habitat contained particular resources in surplus over domestic needs, but wanted by groups in adjacent territory and therefore affording material to use in exchange for coveted substances, lacking in greater or less degree in the home environment, the tribe was measurably confirmed in its sense of ownership of the territory that it roamed over. Instead of aimless wanderings, purposeful journeys were also made necessary, because certain areas needed to be resorted to at given times in order that supplies for trade might be secured. The land acquired a distinctive value, not only as a whole, but in its several parts and their particular resources; not yet as apportioned to individuals but as the holding of the entire group.

The population of areas occupied exclusively by hunting and fishing tribes must of necessity remain sparse, for the exploitation of natural resources is then narrowly restricted and the social organization of the occupant groups can, accordingly, remain very simple. When once trade relations had been entered into with neighbouring groups, or with strangers from a distance who made periodical visits in force for the purpose of barter, a wider and more specialized utilization of the provision of the

environment naturally followed. This made possible an increase in the density of population and led thus to an enlargement of the tribal group. With progressive advancement in civilization, accompanying the development of the arts and industries, the nation, with its dense population and regional expansion, has been evolved from the original nucleus of the hunter and fisher tribe. The surprising fact of this evolution is, however, not that the nation comprises so much greater numbers, or that it holds so much wider territories, often, than did the primitive tribes, but that the narrow limits of tribal coherence fixed by close kinship of blood were broken down very early, and that nations now are made up of ethnically very diverse, human elements. The bond that held together the original tribal unit has all but disappeared; with the enlargement of the group and its advance in culture, kinship has been displaced by the ties of the land which were first significantly brought into human consciousness by the initiation of trade.

The animosity that mars modern international relations is due only in very slight measure to the physical antagonisms that made for hostility between different tribes. The consciousness of kind and singleness of purpose that defines the national group is the knowledge of common and exclusive possession of certain territory and a determination to maintain this control as the prime essential of national independence, or, on the part of a landless group, the desire to secure a certain domain, its opportunities and resources. Rivalry for the possession of lands not already nationally occupied or only feebly held, and covetousness in general of territory under the dominion of other na-

tionals have, concurrently with the substitution of loyalty to home for loyalty to kin, become fundamental to practically all contention between national groups.

It is, therefore, especially pertinent that there should be noted the steps in this transition from one to another basis of adherence in human associations. What factors made possible the great expansion numerically in the membership included in a single group accompanied by ethnic diversification, often of an extraordinary degree, and the development of broad personal tolerance? Why and how did intergroup relations become so much multiplied and progressively essential, as the national organization more and more completely supplanted the earlier tribal adherence?

The Paiute Indians of the Great Basin Region in the west of the United States illustrate the conditions of the earliest phase of tribal organization, in that their culture lacks any sense of ownership of the soil. The country formerly occupied by the Paiute tribes is so barren and inhospitable, because of its marked aridity in association with low temperatures, that the natives were compelled to rove about in very small bands seeking the rabbits and other small game, fish, roots, and seeds by means of which they eked out a miserable existence. The very scanty provision of game, and other means of subsistence, in any one locality permitted only small groups, and made it necessary for each clan to range so widely, and in so irregular directions, over the territory that the individual tribes seem not to have asserted ownership in any particular portion of the country.

On the other hand, each group of a number of almost

equally wretched, wandering tribes found in north-central Australia is reputed to be so definitely allocated to a particular region that the idea of ousting any one group from its special habitat does not seem to have any place in the pursuit or settlement of intertribal wars. Although both the North American and the Australian natives cited apparently have about the same low status in culture, the difference in their several relations to the land appears to be due to the fact that the environment of the Australian savages is enough richer in natural resources that a specified and relatively restricted district will support a single small group, thus freeing it from the necessity of ranging widely and indefinitely in search of subsistence.

Eskimo tribes have probably about the same degree of proprietorship feeling in regard to their respective strips of Arctic coast as do the Australian natives. The Eskimo derive their livelihood from the sea but are hunters rather than fishermen. Tribes that depend primarily on their catch of fish as a main food supply are not under the same compulsion to seek their quarry, often far afield, as must the Eskimo hunters. A fishing tribe, therefore, is generally found to occupy a definite site and to have a correspondingly better developed sense of identity with the area on which it lives than is possible for a nomadic tribe of hunters. Fisher folk situated on the sea-coasts in temperate latitudes, and on lake shores and river banks generally, have immediately available a relatively ample and certain food supply. Having their chief means of subsistence in a sense guaranteed, the fishermen tend also to exploit the land areas adjacent to the fishing grounds as far as they are able; deriving from them supplementary

supplies of varied kind. Thus they come to develop permanent and intimate relationships with comparatively limited regions. This was the adjustment to environment of the occupants of the ancient lake villages of Switzerland probably, and is that of the negro tribes dwelling along the Congo in Africa, of the South Pacific Islanders, and of the Indians of the northwest coast of North America, particularly the Haida and Tlingit tribes. Tlingit and Haida organization and tribal institutions are representative of those which prevail in all these groups. That blood kinship is the essential basis of coherence and unity in the Tlingit and Haida tribes is particularly evident because of the conspicuous advertising given it by their totem or crest system, in accordance with which each individual in the tribe indicates his line of descent by painting the appropriate animal effigies on the front of his abode and, more recently, by carving them on monumental poles. Each Tlingit tribe has its own salmon streams and berry patches, and perhaps also sealing grounds, to each of which resort is had at the appropriate season; and all of which are respected as the particular possessions of that tribe and are not poached upon by neighbouring tribes.

Transition from a main reliance on fishing to a status in which chief dependence was put on agriculture must have been feasible, primitively, for many originally fisher groups. It is entirely conceivable that the very earliest sedentary occupation of the most ancient sites of civilization, those of the Nile Valley, of Mesopotamia, of the North of India, of Phœnicia, and of China was the result of transition from the life of hunters or pastoral nomads

to that of fisher folk, and then to keepers of domesticated cattle and to cultivators of the soil. Breasted,[1] however, ignores the possibility of an intervening fisher stage in the Nile Valley and has the plateau hunters become cultivators of the soil and domesticators of animals immediately they descended to the alluvium at the river's side. Whether or not it applies in this particular case, the opportunity to fish at some especially favoured spot would furnish a strong incentive to settle there permanently, and thus be the one factor competent to convert the huntsman and the shepherd from a nomadic existence to that of a lifelong dweller in a village. In Mesopotamia it is quite likely that the pastoral-nomad stage of culture intervened between that of the more primitive-hunter culture and the later agricultural status. Domestication of animals had therefore been accomplished before a sedentary existence was attempted, and the possession of herds may have facilitated a direct transition from a wandering existence to fixed residence and main dependence on agriculture.

But it should be noted that the nomadic tribes of the grasslands are perhaps more completely estopped than are tribes of wandering hunters from any notable increase in either the size of the tribal unit or in the total population of a district. If the number of the beasts belonging to a single unit is greatly increased, to provide for an equal augmentation in the membership of the tribe, the supply of water of the desert spring will become too scanty and the pasture about it will be too immediately consumed. If the tribes remain small, while the total of their number,

[1] J. H. Breasted, "Origins of Civilization," *The Scientific Monthly*, pp. 308, 314, Oct., 1919.

and that of their flocks, increases rapidly, the capacity of the grasslands to afford subsistence is quickly surpassed and the result is famine, intertribal conflicts, and raids until numbers are again reduced in the measure necessary that a livelihood is assured to all those who survive. And the meagre pasture of the steppes can at best support only a very sparse population.

Hence it appears that when and where primitive tribes dwell in permanent villages and derive their subsistence from fishing, from pasture-fed cattle, and from agriculture, a notable increase in population density over that possible to nomadic hunters and pastoral groups can occur. The tribal unit comprised in the single fisher or agricultural village could, moreover, be much larger than that of hunting groups or pastoral nomads. Again, when the population of an original settlement became so numerous that the resources of the immediate site were no longer adequate to support all the inhabitants, fission no doubt resulted and new sites were occupied by colonial groups from the earlier settlements. Thus a wide region might eventually become inhabited by a confederation of tribes with a common origin. But the development, by this process only, of a much larger amicable group than that of the patriarchal tribe would seem to have afforded very little opportunity for the introduction of alien stock; for any expansion involving the inclusion of ethnically variant elements, and the consequent breaking down of the narrow, gentile prejudices of the primitive, family clan.

Nevertheless there were certain possibilities by which new blood might be introduced even under this limitation. The colonial expansion of the village settlements involved

the displacement of tribes in adjoining territory that had not advanced beyond the hunter stage, and, in a measure, the absorption of these more primitive folk as well. The outward spread of the fisher-agricultural tribes was in fact the inauguration of a process that has held sway ever since in the successive, if not progressive, occupation of the regions of the earth by different groups of mankind.

Because the people of the village settlements had developed a superior culture they could utilize the environment more intensively and hence make it support a denser population. But in time the limit of increase in numbers possible even with wiser utilization of resources would, at any given site, be approached and population pressure would ensue. There was, however, nothing new in this. Pressure of population numbers had earlier been, and no doubt was being, experienced by the hunter tribes of the same neighbourhood at the time of fisher-agricultural expansion. In fact vast areas may be regarded as once having been filled up to the subsistence limit in the hunter stage of human culture; for example, the larger portion of the North American continent was so filled by the Indians at the time of Columbus. But surpluses of population in the hunter stage disappeared through famine and by conflict. The new condition that was introduced with the expansion of the fisher-agriculturist groups was the possibility of increasing the density of population over a wide region through displacement of backward groups by others more advanced in the development of arts and industries. That process has not yet ceased of application; in fact, it has tended to become cumulative.

There were, however, only relatively slight differences

in the cultures of the tribal groups opposed to each other in these first instances of territorial aggrandizement. Alien women captured by the conquering colonials were gladly preserved and apportioned among the males of the victors. It seems also to have been rather universally the custom among barbarians to adopt numerous male captives into the tribe; an expedient that afforded a means for offsetting unavoidable losses of warriors even when the tribe had been, as a group, uniformly successful in a series of encounters. The Iroquois Indians of North America, typically representative of a group slightly advanced in culture over their neighbours, practised such adoption on a quite extensive scale. Thus, as the emigrant villagers, more competent, therefore more prosperous and hence also more prolific, successively displaced the primitive fringing peoples, a not inconsiderable measure of new blood was added to the victorious group by preservation of captives. And it may be assumed that the existence of these captives in their midst had some effect in ameliorating gentile intolerance.

The fact that the fisher-agriculturist settlements were located on the shores of river, lake, or sea, moreover, facilitated the development of trade by their peoples. A water highway, particularly a river, would first be a route for plundering raids, then for timid and suspicious barter and, as population along its course grew denser and more completely sedentary-agricultural, mutual confidence and toleration, at least in so far as trade relations were concerned, could be much extended. Rafts and boats, even of the most primitive type, serve to convey bulky goods so easily that development of inland water routes

continues to be advocated despite modern facilities for overland transportation. The difficulty of navigation against the current, up-stream, was no doubt a deterrent of considerable significance to the earliest utilization of river routes for carriage of goods. But in the case of the Nile, one of the streams first so used, the normal direction of the trade winds, which prevail over its course, is up-stream, making possible, with the employment of sails, against-current transportation; and this comparably easy to that of down-stream movement. A progressive intergradation of the originally separate groups situated on the Nile banks, accompanied by a notable uniformity of development of the whole Nile Valley, resulted from the possibility of exchange of goods, through river carriage, in both directions on the Nile.

The currents of the Tigris and Euphrates of Mesopotamia, on the other hand, are strong, and there was no counter-propulsive force available to the Mesopotamian ancients for up-stream movement of their craft. In consequence there developed a large volume of "in" traffic down these river arteries, that could only be compensated for by trade outflows through very numerous veins of dilute, overland transportation. Hence Babylon became one of the first great commercial centres, typical in that it received and engorged a great bulk of raw materials and gave out trickles of fine stuffs in payment. The situation of the Phœnicians, on an essentially current-free inland sea, in a way provided them with the advantage both of the Nile Valley and of Babylon, for on them focussed the overland routes from each of these early centres and they could also set sail in any direction over the Mediterranean

waters. Accordingly theirs became the first historic trading empire.

Yet another factor that tended to bring about the change from the narrowly restricted cohesion of the kinship tribe to that based on a realization of unity through common possession of a country was the development of religion. J. F. Myres [1] describes the early occupants of the Nile Valley as made up of tribes, each recognized as possessor of its own district, having intertribal intercourse, friendly, competitive, and hostile, and kept active by a lively up-and-down-stream traffic in goods. The Nile villagers were partly pastoral, for they owned oxen and goats, with slaves to tend them; and asses for transport. If irrigation was practised it was only in a limited, local way. Similarly, in Mesopotamia, the ancient culture of Elam, preceding Sumerian Babylonia, was that of a region, not of a state. Its groups of population had each their own ideals of conduct and beliefs about the will of heaven. (Myres, *ibid.*, p. 124.) The reference to the "will of heaven" is significant in that it gives a clue to the ground for cohesion in the later development of tribal organization when, because of increase in numbers, the group exceeded the limitations imposed by a bond due to literally interpreted, ancestral kinship.

Very early in the history of tribal aggregation a sort of religion makes itself manifest through a belief in supernatural qualities or powers residing in men, animals, objects, deities. Among the Malay peoples these qualities were denoted by the word *mana,* among the North American Indians the terms used were *orenda, manito,* and

[1] "Dawn of History," p. 58, New York, 1911.

wakanda. The head of a clan is eventually regarded as the representative of a mythological ancestor, the one who has inherited his orenda; officials of the tribe acquire a priestly function, rituals are developed, and the priestcraft as a whole exercises governing powers. In their initial stages the religious rites are gentile, and participation in them is restricted to the patrician members of the group. The inclusion of numbers of aliens into the tribe causes the ancestral gods to be, in time, supplanted by regional gods to whom all in the group may turn for comfort and assurances of safety, and these regional deities require to be propitiated just as much as do the aristocratic clan gods. Thus it is interesting to note that the Egyptian tribes had at first each its own local deity, consequently there was then a multiplicity of gods in the Nile country. But it is significant that the various gods of Egypt often had attributes in common, and that, eventually, the worship of all the local gods, the cult of sacred animals, became subsidiary to that of Horus, the god of sun and sky, whose enemies were cold and darkness; and who, accordingly, was representative of the beneficent aspect of all the Nile environment. In Babylonia the record is likewise one of local cults followed by the supremacy of Marduk, also a sun god, but in this case "he who overcomes the waters"; for the Babylonians had to contend with floods rather than with cold and darkness. Thus the influence of place made itself effective through religion, also, to promote a broader unity of peoples.

The narrow, personal intolerance of the primitive clan is broken down progressively through realization of territorial rights and opportunities for barter; by development

of permanent settlements dependent on fishing, agriculture, and the keeping of domestic animals; by increasing density of population, through colonial expansion of more advanced groups, accompanied by assimilation of alien elements; through development of transport and trade, and by the establishment of local and regional gods in place of earlier ancestral deities. But even when the degree of unity indicated by a wide acceptance of a single religious belief had been attained there could scarcely have been any integration of community interests on a regionally broad scale and basis.

One further step, in the consolidation of originally heterogeneous-population groups, was possible through the development of a hunting tribe to a fisher-pastoral-agricultural people, especially in the regions where irrigation co-operation early brought about the association of large numbers. That step was the founding of cities. With the attainment of the fisher stage, village life begins, and probably becomes more fixed as greater and greater dependence is placed on the agricultural yield. But town life, and the rise of a district metropolis, could not follow from this alone. The concentration of population in cities, past and present, is dependent on the focussing of trade at some particular point, followed by the rise of arts and industries at such centres, because of the variety and volume of raw goods available there for conversion into more specialized products by the application of labour.

Even in regions that are geographically quite uniform, certain areas nevertheless occur that are superior in natural advantages to the average of the territory. Thus there is better pasturage around a spring in the steppe

lands, along the course of a river more fish can probably be had in the pool at the end of a rapids than from the general current. Some material may occur at one place that is lacking in the region generally, or some substance may be of better quality or more accessible in a particular area. Primitively, clay and flint were probably the great desiderata. At points where these occurred abundantly the earliest manufactures might begin and the inhabitants of those areas be led to a more complete and correlated exploitation of natural resources than their less fortunately situated neighbours. If, further, the industrial site was located where routes of trade from unlike geographic regions crossed each other, its manufactures and growth as a population centre would be afforded great impetus. The site of Thebes, capital of the Middle Kingdom of ancient Egypt, will serve as an illustration. At this location the Nile bends far to the east toward the Red Sea, bringing the river to within one hundred miles of the sea-shore, nearer than at any other point until the Delta is reached. Travel and transport across the relatively narrow, intervening desert barrier at Thebes is, moreover, facilitated by a large side valley extending eastward as a deep cut into the plateau. This cut afforded not only a low-grade route but also was provided with a sufficient number of water-holes to make the trip between river and coast feasible for men and burden-bearing animals. On the west, similarly, an easy road across the desert from Thebes leads to Kharga, the nearest and largest of the Libyan oases, and from Kharga in turn other habitable spots in the western desert were accessible. From the south the products of Nubia came to Thebes over the river;

north, similarly, those of the Delta. The Thebes
rdingly, was the natural centre of interchange of
n east, west, north, and south.
rticular sites of the settlements that later grow
, until very recent modern times, have generally
rmined by considerations of defence. At defen-
its it naturally followed that religious shrines
ted under the shelter of the fort. As set forth
ngs,[1] the establishment of a fort and a shrine
l the presence of a garrison and priests, and of
. and personal attendants to serve these non-
. The shrine attracted pilgrims, these brought
he nucleus of population and the protection af-
ought traders, and the combination of all these
eant that stocks of food and goods accumulated
barter flourished. The inhabitants of a so engen-
pulation centre—soldiers, priests, craftsmen, pil-
aders—would at first be comprised chiefly of
, still imbued with clan jealousies. Enemy
e conquered and enslaved men of other tribes,
e booty secured on expeditions, sent out from the
f often, and held as servitors and followers by
s tribal chieftains, shortly became a considerable
f the resident population. Others of the slave
itives from masters living in the surrounding
ound the town a good hiding-place and augmented
ers of its "foreign-born" population. If these
were craftsmen they might be openly tolerated,
ent their children became birthright citizens.
e this heterogeneous class of outsiders developed

[1] Giddings, "The Responsible State," pp. 9-12, Boston, 1918.

into a numerically strong group of plebeians, as contrasted with the patrician ruling class. In time, too, regional gods supplanted the ancestral, tribal deities, and the greatly increased accumulation of wealth concentrated in the city made it necessary to include members of the plebeian class in the city's armed guard. Thus what was originally a distinctly inferior class gradually acquired full citizenship rights. A next step was to declare all inhabitants within the territory dominated by the metropolis members of the group for civic and military purposes. That action in itself did much to engender patriotism, love of, and habituation to, a common home, willingness to struggle for the preservation of the individual economic opportunity it afforded; political consciousness as opposed to the earlier tribal adhesion. The knowledge that envious enemies regarded the city, with its concentrated wealth, as a distinct entity, a rich prize if it could be taken, no doubt also had much to do with the full realization of community consciousness and like-mindedness on the part of the inhabitants.[1]

The city-state, accordingly, owed its establishment to recognition, on the part of the inhabitants of a region, that they had a common interest in the economic opportunities the territory afforded and that the welfare of all was best served by free competition between the citizens in utilizing and developing the resources of the area. The city-state was succeeded by the nation-state, and this in

[1] For a more extended discussion of the influence of place in bringing about the city-state, especially as applied to Greek and Roman origins, see: "The City State" (by W. Warde Fowler, London, 1893), Chap. II, "The Genesis of the City-State," especially pp. 42-44 and 48-52.

turn by the federated nation or commonwealth; merging successively larger and larger population groups under place-community bonds. Within the territorial confines of each of these "place groups" mass disability and sectional discrimination have disappeared, though class struggle persists. As between nations, however, mass opposition continues up to the present to interpose its barrier to a free development of world resources.

The nation-state and the federated commonwealth did not, however, result from the direct and progressive expansion of the city-states. The city-states were in effect the end result and the fine flower of successive and connected steps in the evolution beginning with the very primitive, wandering, kinship tribe and culminating in the civilization of Athens. But the city-states in their eventual perfection were the expression of a development arrested from further growth by limitations of environment. Nomadic tribes settled down to agriculture, village communities consolidated to enjoy the protection of a local citadel, infusion of new blood resulted from conquest and assimilation and trade contacts, distinctly urban centres grew up at sites particularly favoured for commercial intercourse, regional religion and the wide co-operation necessary for development of land by irrigation enterprise linked up outlying territories. But all these consolidating agencies were effective, after all, over only a comparatively limited area, and, what is more important, applied in each case only to regions definitely marked off from other lands by physical barriers and similarity of conditions within the boundaries so determined. Thus while the Nile lands, Mesopotamia, and the Italian peninsula, as eventually

consolidated under Rome, were relatively extensive territories, in contrast with those of the Greek plains and the coastal territory of the Phœnician cities, yet in each of these instances the environmental situation was essentially like over all the parts of the region involved. Geographic diversity, differences in climate, and hence of the agricultural production which was the chief source of wealth in those days, and on which subsistence depended, was lacking; and this similarity marked other natural resources as well. Hence only a very narrow range of possibilities was presented for the development of domestic commerce.

Material progress, accordingly, was beset by definite environmental limits, and once these had been reached human energy and ambition tended to strive for the perfection of political organization, for the refinement of statecraft, and the cultivation of the arts and letters. The intensiveness of the application to those pursuits, and perhaps the particular genius of the peoples that practised them, provided the world with a very rich heritage indeed; but it is a legacy that resulted in part because of the failure of the uniform environments of the city-states to furnish material opportunities sufficiently diverse in kind to afford scope in external enterprise for the precocious intellectual attainments of those ages. The modern backwardness of the areas of the city-states is in a degree indicative of their paucity of resources for supporting an industrial and commercial civilization.

Moreover, the people joined up in the larger units of the city-states, though derived from originally hostile tribes, were, nevertheless, all the products of the same environment; comprising perhaps a unit racial stock developed

through the preserved mutations of the ages, and certainly, in each instance, possessed of acquired characteristics that were very like to those of the other resident tribes, for the habits and customs of all must have been in general similar to permit survival in the same kind of surroundings. There was no possibility, therefore, of bringing together very diverse human elements in the consolidations that were original to the formation of the city-states.

In a word, the narrow and uniform environments of the several city-states seem to have been exploited in all their possibilities at a comparatively early date by population groups that were also very uniform in type, and thereafter the surroundings failed to stimulate men to novel external enterprise. In consequence of this stagnation the order of society tended to become fixed and rigid. For, while a place and community loyalty had become the fundamental fact of coherence to the groups of tribes merged into the common citizenship of the city-states, it must also be realized that the aristocratic tradition was perhaps the most significant feature in Greek culture and in Egyptian and Roman organization. Kinship had lost its potency as a unifying factor, but it persisted as the basis of class distinctions, has indeed survived, though with steadily diminishing effectiveness, until now in this relation.

In effect the city-states were administered as huge estates, of which the descendants of the original tribesmen who had founded the city were the proprietors. The founders of Athens, for example, probably did not migrate thither in a body, but many of the noble families no doubt removed almost immediately to the new centre,

because residence in the city gave them the opportunity of concentrating aristocratic power. Attica had been divided among four tribes, twelve phratries, and three hundred and sixty clans; each clan having as its nucleus an aristocratic family. At first the aristocrats may have regarded themselves as trustees, simply, of the common possessions, though they must have already held land in private ownership, for the population then, as a whole, was comprised almost exclusively of tribesmen, kinsfolk, who also were all entitled to some share in the estate, however small. As time passed and the population, greatly expanded in numbers, became more heterogeneous and included, especially, an extremely large proportion of slaves, the tribesmen continued to rule, to comprise the citizen group, while the nobles among them used their wealth to secure power and privilege. The oligarchic domination which resulted was later broken up by the redivision of the state, for administrative purposes, into *demes,* or townships, on a regional basis and by including as citizens of these demes every free Athenian, other residents of Attica, and enfranchised slaves, many of whom had not before been inscribed on the registers. By this measure the kinship bond was very completely broken through and over in so far as Athens was concerned. But as there were at that time perhaps 100,000 slaves as against a free population of about 135,000, it is evident that the governmental tribulations of the Athenian civic group were in the nature of family debates and quarrels in regard to the rules of procedure, division of revenue, authority and prestige in the management of the joint estate. In ancient Egypt, essentially similar conditions prevailed. Servile depen-

dents did the actual work necessary to obtaining a subsistence from the environment for all the population in both Egypt and Attica. The Athenians lived the "good life" and disputed about the division of the product of industry and commerce.

These generalizations are broad and hence needful of a variety of qualifications in application to particular instances at specified times. Nevertheless they express the significant fact, which is that the citizens of the city-states as a body comprised a master-group, of high and low degree indeed, with regard to comparative wealth and power, but nevertheless all looking within the state for their particular emoluments. It was an essential requirement that the city-state should be self-sufficing, complete in itself and adequate in every respect for its population. In the modern nation the slave status does not exist and practically every individual resident in the territory of the nation is engaged, as an independent unit, in some gainful pursuit, in functioning as a worker in exploiting the natural resources of the country, and in meeting, through commerce and manufacture, the multitudinous wants of the whole population. The modern citizen engages in politics only as a secondary and incidental business or, as in the case of some few, as a member of a professional group. The class struggle is between the wealthy and the poor and involves all of the population. Within the nation individual citizens compete on equal terms for economic advantage and civil advancement, except as inherited capital makes for disparity. Unequal distribution of wealth within the nation occasions political agitation and internal disorders, but such dissension in no way affects the com-

plete solidarity of the group in endeavours to maintain its prestige and to obtain a differential advantage in its relations with other nationalities, and in preventing the governmental organizations of the foreigners from deriving advantage of any kind from the national domain. If not in exactly the same way, nevertheless in much the same spirit that the citizens of the city-state utilized slave labour to secure for themselves the "good life," the modern nation, consciously or unconsciously, is striving to get from other nations more than it is willing to give in return, or in some other way to outdistance its rivals to their disadvantage.

The international rivalry which has therefore developed, and which has resulted in international anarchy, is manifested in various ways. Primarily it finds expression in endeavours to preserve the home market from the competition of goods produced abroad. Curiously enough, there is little or no objection to the establishment of industries on native soil by foreign individuals or corporations, and through the investment of foreign capital. The profits resulting from the sale, without let or hindrance, of goods so produced may be sent abroad indeed; but similar goods, originating outside the country, are prevented altogether or in part from access to the home market by the handicap of import taxes. This is in line with the generally approved policy, harking back to the time of the city-states, of making the nation as nearly as possible self-contained; of producing all essential commodities within the national boundaries. That a self-sufficing programme is impossible in respect of many materials, even for nations possessing wide territories and varied resources, gives rise to ambitions to hold and to exploit outlying regions, peopled by

groups low in the scale of industrial development; in other words, gives rise to the imperial impulse. In backward countries which are politically independent, there is competition for trade and investment between representatives of the different industrial nations, and this competition often takes the form of a struggle to secure preferential treatment in the matter of concessions and other enterprise of exploitation.

That many of the expedients, to which resort is had in endeavours to attain the discomfiture of rival nations, are futile, and to a degree often that the very end sought is defeated, does not alter the fact that, whereas mutual toleration and the recognition of equality in pursuit of economic opportunity exist between all numbers of the large and diverse populations of many modern nations, these groups, as units, maintain a jealous, suspicious, and openly hostile attitude toward each other. The tribe has been expanded into the nation, the coherence and loyalties of nations may be referred to the soil and are no longer based on kinship, but despite these changes the animosity of one group for another has been abated only in the matter of contacts between foreigners as individuals. Each loyalist group still conceives itself as at odds with all the rest, and is resentful, not only of every act and policy of other nations that is considered detrimental to its own interests, but also, indeed, inclines to regard every superior attainment of rival groups with jealousy.

The possibility and the existence of friendly business, and even social intercourse, between individual foreigners indicates that the anarchy of modern international relations is not descended from the old personal antagonisms

of tribesmen. Neither can the wider territorial unity of modern national organization be ascribed directly to the expansion of the city-state. Personal tolerance of the foreigner on the one hand, and ethnical diversification, numerical increase, and territorial expansion of the coherent unit group on the other, have both resulted from the intervention, between the city-state of ancient days and the modern nation, of a transitional status of military empire. Moreover, the idea of conquest, domination, and exploitation, through tribute-compulsion, of distant peoples and widely extended areas did not originate with the city-state. The notion of extended empire was repugnant, indeed, to the citizens of the city-state, for it clashed with their ideal of a self-contained and self-sufficing community, possessed of a distinctive culture. That the city-states later adopted imperialistic policy was owing in part to compulsion, in that self-preservation made it necessary, in part to the ambition of individuals among the protocracy who saw in empire and world conquest the possibility of becoming truly supreme over all men. The first consolidations of peoples and territory into wide empires were brought about, however, by a different succession of geographic influences than those that found their culmination in the establishment of the city-state. The modern nation is representative of survivals from both the geographic conditions that brought the city-state into being and those that made for the development of military empire. What, then, were the circumstances that led to empire formation?

Adjacent to the irrigable desert-edge lands of the Nile and in Mesopotamia, anciently occupied by fisher-agricultural folk, are steppe and desert lands of wide extent.

On the strictly desert lands, almost completely lacking vegetation, man can not find subsistence and the inhabitants of desert areas, except a few nomadic traders, are settled on scattered oases, where ground water emerges in sufficient quantity to make it possible for the date palm to flourish and grass to grow. Cultural development under oasis conditions has been similar to that of the irrigable desert-edge lands, but the restrictions imposed by isolation and the narrow confines of the habitable areas limit advance. Caravan trade, anciently and now, in some measure mitigates the lack of variety and paucity of resources characteristic of the hemmed-in, oasis environment, but, at best, population growth in oases, dependent as it is on the ultimate degree of exploitation of the limited water supply available, must have practically ceased soon after the settlement of such territories.

It is otherwise with the steppe lands. Their expanses are, by contrast with the narrow confines of the oases, limitless; and, even if their resources are in totality meagre, steppe lands do border on the more productive irrigable and rain-forest lands; so that contact with a wider environment is facilitated for the steppe dweller. Man could not, however, have existed in the steppe lands as a horde. Probably only after the hunter tribe had been evolved did he emerge from the tropical forest onto the desert-edge and steppe lands. On the grassy plains of the steppe, man, even as a tribal hunter, was severely handicapped. The herbivorous animals of the steppe environment are fleet of foot; their natural enemies, as the lion and the puma, are brown-tinted and of crouching gait, to suit them for stalking in dry grasses. Man, erect

of posture and capable of only slow movement in comparison with these beasts, could scarcely subsist on his kill in such a habitat. On the other hand man can not eat grass.

The alternative was to tame and to domesticate the herbivorous animals, to become a parasite on their existence. The mare, the sheep, the camel, and the goat were made to furnish man with milk and meat, fibre and leather. But when once man had established himself in a pastoral life on the steppe, his, then, tribal organization had attained all that the environment was capable of sustaining. Agriculture was impossible because the herd was constantly on the move to fresh pasture. Though the ass, horse, and camel could be pressed into service as burden bearers, material possessions beyond a certain minimum of tenting and utensils were only impediments. The few essential commodities could, moreover, be replaced at one point as well as another, and their manufacture was so simple that each member of the tribe was entirely competent to replenish his own outfit. The life of the pastoral nomads affords plenty of leisure for the handicraft industry this involved, hence there was no occasion or advantage in division of labour or specialization of production, except as determined by sex, and no basis for interchange of commodities between different pastoral tribes. Avoidance of land already grazed over tended further to keep tribes apart and made for a common acceptance of limits to the range of each group. Land-ownership of this indefinite kind there could be, also recognition of possession of springs and water-holes. On the other hand the limits of the range also limited the size of the herd and this in turn

that of the tribe. Hence one group could expand only at the expense of another. If, through pestilence or cold, one tribe lost part of its herd, the loss could be made good only by raiding the cattle of some other clan. Robbery, in the code of the steppe-land nomad, is, therefore, a virtue; and to be weak is to succumb. The habitat itself offers little encouragement either for the development of tolerance or for the concentration and indefinite expansion of population.

But, even so, the nomads seem early to have been impelled to seek contact with peoples outside their own environment. Milk, butter, curds, and meat are a narrow range of diet for even an abstemious Bedouin. Accordingly the pastoral nomad resorts to the border agricultural lands, or to the desert oases, to exchange hides, wool, male colts, rams and, in particular localities, desert salt, for grain, implements of iron, and fine clothing. If trade contacts are not easy for all the tribes of a grassland district, or if the products of the bordering agricultural lands on its two sides differ, a caravan trade develops; conducted by nomads indeed, but probably recruited largely from those of their groups situated nearest the agricultural regions. Such caravans are in the nature of expeditions, for while they may be granted a kind of safe-conduct, it is well to be armed and to travel in as large a group as possible. Commonly also, the goods transported by caravan are carried only a step of the journey by one group of traders. Nevertheless caravan-trade relations undoubtedly tend to establish the basis on which co-operative effort by all the nomad groups of a wide district may be initiated when occasion arises.

The life of the pastoral nomad is, and always has been, hard. Necessity constantly presses, and any lack in the narrow range of resources causes the greatest pangs; the food supply is limited. At best meat is afforded only sparingly. If, then, pasture fails and the herds decrease, or undue cold causes the animals to perish in numbers, famine conditions follow almost immediately. The better watered or lower-lying agricultural lands afford the only possible escape from starvation, and irruption of the nomads results.

Of the several contingencies under which a serious diminution of the flocks of the dwellers on the steppes might come about, that of general failure of the pasture lands, due to drouth, would probably bring in its wake most widespread distress in the grassland domain. Cold and pestilence would tend to be localized. Moreover, recurring periods of drouth, perhaps even progressive desiccation, apparently have been the lot of the desert and steppe lands of the Old World in prehistoric and early historic days. In fact ample evidence of climatic change toward greater aridity is afforded by the present-day physiography and human antiquities of the desert and steppe lands of those areas.

It is not difficult to deduce the effects of continued and increasing drouth on the followers of flocks in a given region of steppe. If the drouth made itself felt over all the area rather uniformly, a general foment would result, strife between the nomadic bands would be accentuated. If those parts of the nomad domain farthest removed from the agricultural lands suffered first, and such would be the logical sequence if the climatic change to greater

drouth were progressive, there would be notable pressure from within the steppe lands toward their borders. The dwellers on the edge of the steppe lands and the traders best know the abundance of the agricultural plains. From among their numbers leaders rise, hitherto unknown tribal coalitions form, and shortly the whole nomadic horde pours out to overwhelm the sedentary population of the farms and cities. The nomads are accustomed to move, their warfare is offensive rather than defensive, they have everything to gain and nothing to lose but life in the adventure, and that would be miserably forfeit to starvation in any event if they stayed. Every advantage is with the invaders; they penetrate swiftly and far, their military conquest is complete in a short time.

It was the fate of the early metropolitan centres and lands, both of Egypt and Babylonia, to suffer conquest by nomads. The policy of the nomadic invaders seems to have been, above all other considerations, to displace the ruling classes and themselves, instead, to occupy the official places and to exact tribute and later, taxes, from the rest of the population. Thus the Hyksos, or Shepherd King, conquest of Egypt first established dynastic rule over the whole length of the Nile country. The earlier city centres were thus welded into empires by the nomads. The nomads were numerically few, and their rule over the mass of the subjugated people was, perhaps, no more harsh than that of the equally small bureaucracy originating in the petty city-states that preceded their empires. It is probable, accordingly, that the conquests of the nomads led to a wider toleration, because larger groups of the inarticulate were, by their domination, amalgamated

under one political régime. If it is difficult to conceive the rapid and complete establishment of overlordship by a few newcomers over so wide and populous territories, it is only necessary to turn to the suzerainty of the English over India and Egypt for an analogy sufficiently similar to make the possibility clear. The invaders, moreover, brought new ideas with them, thus the hieroglyphic system and a new art into Egypt; so that while the time of the clash was one of devastation and setback of culture, in the end, unification, new blood, and new ideas, perhaps, more than offset the losses sustained. It is significant, too, that the coming of the nomads into Egypt was over the route from the east into the region of Thebes. As this area had profited earlier because it was at the crossing of trade routes, so its situation also gave it first use of the new ideas of the invaders.

In time the erstwhile exacting and energetic conquerors yielded to the comparative ease and luxury of the sedentary-agricultural environment into which they had thrust themselves, and tended to become an effete, and altogether parasitic, officialdom. Hence it was not difficult for competent natives to secure many of the lesser governmental posts, for the overlords could only be secure by having efficient helpers. Meanwhile, also, the conquerors intermarried with, and became absorbed into, the mass of the population. The conquests, however, thrust upon the subject peoples a broader unity than had hitherto existed, and compelled a mingling and co-operation of groups that had previously been intent only upon preserving an independent existence. Their self-determination prejudices were effaced by the subjection all had to endure.

The major difficulties and disabilities of life were now suffered by all in common, and relief was only to be had by forming coalitions through which concessions could be demanded from the alien overlords. It was particularly necessary to insist that government should recognize the need for maintaining prosperous conditions among the inhabitants of all the empire, that is, over wide districts. Progress in this direction was indeed slow; all the centuries intervening between the time of the first empires and the present have been needed to secure the acceptance of the ultimate principle, that government should function in the interest of the majority of the governed, and not for the benefit of a dominating minority, much less for the advantage, solely, of a class of nobles.

But despite the slowness in realizing its end result, the experience of empire taught mankind the great lesson of the advantages to be derived by all the community from correlated effort and free intercourse between great numbers of people, spread over wide territories. And that knowledge has endured. Empires grew until they compassed all the known earth in their domain; and fell apart again, in accordance with the genius of the leaders of the particular times. For the political organization then was in a high degree artificial and had little geographic basis. Yet the mere existence of the empires of Alexander and of Rome served to establish relationships between all the peoples of the known world of those times, and these connections were not allowed to lapse altogether even in the Middle Ages.

Development of true nationalism, of the sense of unity of peoples as dependent on place, with reference to exten-

sive regions, instead of the community consciousness hemmed in by the narrow confines of a city-state, to which degree place-loyalty had, indeed, been achieved, did not, however, result immediately from the integration due to empire formation. If all the centuries of history are taken into consideration the process of nationalization may be thought of as having proceeded swiftly. But as viewed from the present nationalization has lagged, and at times apparently been checked altogether. Yet progress toward the realization of a larger nationalism has never entirely ceased. The march of events has made successively for integration and welding of world interests. The Phœnicians and Vikings initiated ocean navigation and the seas have become the highways of the world instead of insuperable barriers. The imposed law and order of the Romans was an advance over what had previously been accomplished in empire organization. The decline of the Roman Empire was coincident with the rise of the great religions. These promised at first to unite all men in the service of God, but their appeal spent itself in a fury of fanaticism. The barbarian invasions of Europe differed from the Oriental, nomad conquests, and those of the leaders and armies from the city-states, in that the alien intruders into the West comprised vast numbers. The sparse populations of the widespread plains of northern Asia, when converged and poured as through a funnel mouth upon the narrow peninsula of Europe, constituted a human inundation. The movement was in part a migratory infiltration, and in any event the hordes could be accommodated only as they settled on the land and not simply by their assuming the governmental functions, as earlier

conquerors had done. All the Middle Ages period of chaos was required to permit of the readjustment this great relocation and intermixture of peoples involved.

Realization of nationalism was delayed by the long continuance of an essentially military organization of peoples. This in turn was owing to the relatively slight importance of industry in community life until comparatively recent times. As long as agricultural lands and their produce constituted the chief form of wealth, the raid, yielding plunder in kind, could be made a profitable enterprise. Again, it was only as facilities for swift communication and transport over long distances were developed that industry could come into its modern importance.

In other words, the direct evolution of nationalism, in unbroken sequence, dates from the Middle Ages. Since then peoples have come more and more to recognize their entity to consist in their being occupant of different territories of the land surface of the earth. The Crusades relinked the West and East in commercial intercourse, and fostered the revival of civic consciousness in the trading communities of the Mediterranean. The Period of Discoveries opened up the temperate lands of the New World to colonization, and of the tropical areas to exploitation by Western nationalism. The American Revolution and the French Revolution compelled the recognition of the proprietary rights of the resident population to the yield of the soil and the fruits of industry, and as opposed to priority demands on its income by either a governing group or noble class. The Age of Steam, and the Industrial Revolution it ushered in, so multiplied the

productiveness of human effort as to make a general increase in material well-being possible, and, through the opportunity for education included as part of this new prosperity of peoples, the general level of intelligence has been much raised. The bulk of the Western peoples are approaching the fitness for nationality once possessed by the citizen group of the city-states.

But the world is yet far from the attainment of the perfection of national organization that should be possible. The average citizen is conscious of the limitations geography imposes on national development and expansion, but, because he is both unknowing of the import of these limitations on national life, and unwilling to accept their existence as circumscribing national ambitions, the nation collectively seeks to escape them by promoting policies and adopting expedients that are a constant source of international friction and a handicap to progress toward an ideal adjustment of world relations.

Where, however, unity of people and place has been achieved there has also developed a sense of identity of interests co-extensive with quite well-defined geographical areas. The self-conscious group firmly seated on its land conceives and organizes itself into a sovereign state with a country to defend, and a national honour to preserve. Territorial confines mark off a common patriotism which is independent of differences in political opinion. Inside the borders of each nation there is free competition in taking advantage of opportunities to achieve economic success, the distinction of leadership, and civil advancement. Internal friction and self-determination tendencies do in places become apparent, but only as a

dominant majority attempts to fix disabilities, usually political, on some minority group resident within the national territory, but set apart, most frequently by language or religion, from the more numerous element of the population. The minority group is then irked by the restraints and disqualifications that the majority imposes on it, the while the politically stronger class suspects the minority of putting the tie of language or of religion above that of common residence in the land and of seeking through coherence, because of these, nationally spurious, ties to gain ends which will be detrimental to the country as a whole. Moreover, these difficulties arise only where the separatist group is compactly settled in some one or more sections of the national domain, an area either large enough or set off distinctively enough from the rest of the country to make secession a possibility. The situation of Ireland with reference to Great Britain, and of Lower Canada and its French-speaking, Catholic people to the rest of Canada, may be contrasted in this connection with the relations of the Walloons and Flemish in Belgium, and of the French, Germans, and Italians in Switzerland.

At bottom it is a class distinction which makes it difficult for the minority groups to share fully in the common loyalty to the land. The lesser groups, while apparently marked off from the rest of the population only by difference in language and religion, are usually at a disadvantage, also, because of inferior economic and industrial status, hence are subject to exploitation, which must be suffered, but is, nevertheless, resented. And it may be pointed out, further, that this inferior economic status is itself the result of adherence to the unnational institution,

custom, or attribute. The American South, from time before the Civil War until very recent years, felt itself thus a poor relation housed under the same national roof-tree with the rich North. Eventual resignation to the abolition of slavery, and concurrent accumulation of capital with the industrial development this made possible, have eliminated this feeling of national disability in the South to a very considerable extent during the last few decades. In fact the United States is now unique among nations in that, with unparalleled extent of territory, magnitude and diversity of resources, and heterogeneity of population, there is complete unity of national spirit among all its inhabitants, and equality of economic opportunity for any of them in each of its many varied regions.

The national success of the United States was first assured by the guarantee of the Federal Constitution that there may be no sectional or class discriminations within its territories. The fact that steadfast maintenance of this principle, throughout all the period of expansion of the United States on the continent, and that its application, now, even to outlying tropical islands, has not worked harm, but, on the contrary, has brought about unfailing growth in prosperity and well-being to American citizens, despite extension of the principle of equality of economic and political opportunity over wider and wider areas and more diverse populations, proves that herein is contained the essential basis, both for the fullest realization of nationality, and for the dissipation of international discords.

What is involved, fundamentally, is recognition of the truth that all mankind will profit most by permitting

and encouraging the free and complete development of all parts of the earth. The only restriction that needs to be attached to this dictum is that appropriate measures be taken, wherever and whenever needed, to suppress morally evil practices that individual or corporate groups may initiate, or attempt to perpetuate, in the progress of this development, for their private gain. The regions of the earth as a whole are the heritage of mankind, and it can serve no good purpose to waste the energies of the human race by endeavouring to secure, through artificial restraints, the utilization of a given region for a purpose to which it is less well adapted than some other area, simply because the territory better suited to produce a given commodity, or to be the scene of certain activities, is situated in alien country. At most the policy of restriction can only serve to preserve and perpetuate, at the height of development it may have gained, an established governmental régime, but this only at a disproportionate cost to human advancement. That farming has gone into a decline in the New England hills or that the mining of the rich Lake Superior ores has caused the extraction of the meagre Clinton beds of iron ore to be abandoned, has not spelled disaster either to New England or to Pennsylvania or to the United States as a whole. When the earth produces all that it is capable of being made to yield, by application of the best technology of the time, all men will be served best and most abundantly.

Only one danger, then, threatens national life, and that is the possibility of overbreeding of the underfit. The Dutch have attacked this problem, and the results they have already attained indicate that it is surprisingly easy

to raise the average standard of physical and mental fitness of large population groups. If the Dutch results can be duplicated generally there need be no fear of overpopulation and reduction of standards of living. An informed and foresighted body of citizens will take ample precaution that there is improvement, rather than recession, with regard to the ampleness and security of physical life, and of opportunity for intellectual growth.

It is entirely possible that there can be a commonwealth of nations, each unit of which can preserve its individual culture, the while, in association, inheriting the earth in amity. As long as each nation remains intolerant of the just growth and ambitions of other nations, so long there will be international anarchy; international accord will be got by promoting the utilization of all the world's resources for the common benefit of all peoples. The great problems that face humanity really are, how may this utilization be best and most efficiently brought about in both the temperate and the tropical lands.

CHAPTER VI

INDEPENDENCE OR INTERDEPENDENCE OF NATIONS

WHERE nationhood has been realized through the actual possession of place, the homeland of a group of people, there will also have been established a state or government. States exist that are not nations, but theirs is an imposed government, hence not representative of the wishes of the occupants of the territory dominated. Such governments do not function—or endeavour, or even pretend, to function—in the interests of the whole body of the population forced to yield to their authority. But in the true nation-state, whether the form of government is democratic or autocratic, the state exists primarily to guarantee life, liberty, and the pursuit of happiness to all the citizens, or at least to that dominant, conscious-of-kind majority that gives the nation its particular complexion. Indeed, it has been argued from the time of the Greeks that the individual only finds opportunity for self-expression by being a member of the nation group and that the more comprehensive the regulations of the state are, the greater is the personal liberty enjoyed by each citizen.

The state, then, is both responsible to, and responsible for, the people. It is the organization of the group that, by its existence and functioning, leaves the individual free to pursue his particular course in life

without being burdened by a multitude of cares that would be his if he had to fend for himself without its aid. Government is the creation of the group as a whole to care for the individual in the group. Accordingly *pro patria, "Pour la France,"* are phrases with a very real meaning, in that they express the individual's realization of, his duty to, dependence on, and love for, the country in which he lives and the organization of the group of which he is a part, and which gives him freedom to react with his environment.

If the nature of the state be so conceived, it follows that its chief function should be to promote the material well-being of the citizens in time of peace; in war to provide defence against aggression. As referred to the bulk of the population, the degree of material well-being that is realized, or the adequateness of the national defence, will, of course, much depend on the particular political theory after which the state is organized, and on the actual efficiency with which the government is conducted. Whether, however, the results are ill or well, in large measure it may be said that a given people only gets its just deserts; for if the nation-state is not the people's own creation it at least persists only through their sufferance. But it is the peculiarity of those nation-states, particularly, which have most fully realized their own environment that they seek to promote the well-being of the home group at the expense of other national groups; and, if not that, then at any rate to endeavour to prosper in competition with, and disproportionately to, other nationalities.

Governments tend, almost always, to emphasize and magnify the importance of their foreign policies; since

reform measures at home, which would usually be of greater significance to the nation, encounter opposition and are generally unpopular because some one or other element of the domestic population would be discommoded by any change in an established order. What ill effect any particular foreign policy may have on the alien nationalities is, on the other hand, a matter of little consequence, as long as it is not of a nature that will so directly and deeply affect the foreigner's interests as to lead him, perhaps, to resort to arms to secure relief. But while war may not immediately impend, it is this attitude, that prosperity may be most cheaply attained at the expense of, or through the disadvantage of, the foreigner, and the formulation of national devices to achieve these ends, that prevent international co-operation and provoke international hostility.

Once the organization of the group has provided for the protection of the life and liberty of the individual, popular education, community sanitation, and the like public services; further enhancement of the material well-being of citizens is sought through governmental measures for the promotion of the general economic prosperity of the population. The fact that the measures adopted are almost exclusively of a nature designed to handicap the activities of the foreigner indicates the existence of particular national advantages, or opportunities, or institutions, that it is necessary to safeguard, and which are of the kind that afford the native an economic reward, from possession of the home environment, or from the control, by his nation, of outlying territory. It is, therefore, pertinent to an attempt to seek out the difficulties of international rela-

tions to make inquiry first as to the basis of national prosperity at home.

Except as the activities of their peoples are restricted by barriers that other groups interpose, nations prosper, under the modern status of machine industry and world interchange of commodities, only in accordance with their known provision of natural resources, and the initiative, competence, and efficiency of the group as producers of goods. If, further, it is assumed that two national groups are of equal equipment in intelligence and training, it follows that differences in their respective prosperities must depend solely upon the comparative natural endowment of their several territories; which one writer finds to be an "almost appalling truth." Continuing the same line of reasoning, there is no escape from the conclusion that the nation with scantily furnished territory can never become as prosperous as one more richly supplied and neither the one nor the other can enhance its possibilities of economic development by self-imposed regulations.[1]

The farmer situated on a sterile soil can get but a meagre return for his efforts, the while his neighbour who possesses fertile acres becomes affluent as a result of equal toil. Moreover, the less fortunate tiller can not improve his condition by refusing to buy from his better placed neighbour his need of some crop that the farmer with the

[1] A. P. Usher, "Interpretations of Recent Economic Progress in Germany," *American Historical Review*, Vol. XXIII, p. 798, 1918. "It is to be hoped that economic history will ever avoid the excesses of a mechanically materialistic interpretation of social growth, but it would seem that one must put out to sea without chart or compass if one abandons the principle that economic growth is limited by natural resources."

better land can grow with particularly high yield. For, as the commodity is necessary to subsistence, he must, as an alternative, struggle exceedingly to produce what he requires of it on his own poor fields.

While the situation with reference to nations, as units, is not so simple as the relations of the two farmers, the analogy is yet sufficiently close to fit the fundamental conditions of international trade and exchange. What some nations can produce easily and in abundance in their territories others can produce, if at all, in equal volume only at the cost of much greater expenditure of effort, if the attempt is actually made, and to the positive detriment of the community. For, by utilizing the same amount of effort, raw material, land, or the native climatic environment in the production of some commodity that permits the effective use of labour, material, and place, enough of a surplus of the suited industry could be created to make exchange for the lacking product doubly advantageous; in that home resources would be used for production of goods to which they were best adapted and in that the exchange would stimulate the output of the other commodity in its best suited environment also. The world economy of production hereby indicated is not, however, internationally appreciated; hence adoption of the device of import duties to foster the development of varied industries at home, in some measure regardless of the question of natural advantage or disadvantage, and also for the purpose of impeding the progress of rival-nation producers as much as possible.

While the general argument in favour of free trade is perfectly obvious from this statement it is, nevertheless,

true that a variety of considerations must be taken into account before it can be stated conclusively that free trade is the best policy for a particular nation in the pursuit of its own selfish ends.

The first effect of the imposition of a protective duty by any country will be to diminish the total volume of imports and, specifically, importation of the commodities which are taxed. If the sum of exports is not at the same time adversely affected in similar ratio there must result an inflow of money to offset the discrepancy in value of the imports and exports. This has been known as a "favourable balance of trade." The inflow of money makes for higher prices in the country imposing the duty, and, assuming that the effect is felt uniformly by all the population, this means higher money incomes generally. Correspondingly the countries that formerly sent the imported goods will experience lower prices and lower money incomes. The advantage that may accrue, then, from this first effect of the imposition of a protective duty will be that (because of the higher money income on the one side and the lower prices on the other) goods can be secured abroad at a lower cost than before. In the case of the duty-protected commodities the advantage goes to the government, and the gain should be experienced by the population generally in lower direct taxes or in expenditures for the improvement of public facilities; if the imports are materials not protected, the advantage is realized by the individual purchaser. But these relations can not obtain indefinitely between any two countries, each of which has a fixed volume of production, for the nation with the lower price range will, after a time, be unable to take

in the excess of exports from the protected country. The advantage then disappears and the ultimate world effect of application of protection and counter-protection would be simply to bring about an irrational, unscientific, and ineffective geographic distribution of industry generally. That this end result has not, however, been attained, is due primarily to the fact that (and this is important) the very great expansion in the total volume of world trade, in modern times, has more than offset the effect of specific trade barriers in determining the place and volume of production of particular commodities.

Two secondary effects resulting from the inflow of specie, accompanying a "favourable balance of trade," are to be noted. Traders generally welcome the rise of prices that follows, for it enables them to realize exceptional profits on goods purchased before the rise; and, as the traders' percentage of profit remains the same, higher prices, once established, automatically enlarge the money volume of their businesses and the gains derived therefrom. Moreover, a plentiful money supply means easy credit and low interest rates, accordingly facilitates the expansion of all capitalistic enterprise.

These are, however, gains experienced only by a particular class in the nation. On the other hand a country handicapped by a depreciated paper currency before the period of higher prices, due to protection, may find it possible to get back to a sound specie basis in consequence of a favourable balance of trade extending over a series of years. The accumulation of gold under these circumstances permits of the redemption of government obligations at par and this is a gain (for the population as

a whole) of the same nature that the rise in prices of commodities, under like circumstances, is to the trading group; that is, every one's money is worth more. It should be emphasized, however, that, except as they are conditioned by factors independent of the imposition of tariff duties, the advantages resulting from this imposition, so far enumerated, can only be of temporary duration.

In any event the national gains set forth in the preceding paragraphs are not of the kind aimed at, or generally appreciated, by those who seek to promote national economic welfare by setting up tariff barriers against international commerce. The ordinarily reiterated argument, is, rather, that a high-tariff policy will bring about diversification of enterprise at home by protecting infant industries. A nation may be so situated geographically, and may have the natural resources necessary, to enable it to produce a given commodity as economically and efficiently as some other country in which that industry is already established; but is prevented from initiating production of that commodity because of the handicaps of lack of skill, cost of plant, and other difficulties attendant upon the starting of any new enterprise that must compete with going concerns. It is urged further that an initial rise in price in the home market, due to imposition of a protective tariff, will ultimately be offset by the effects of domestic competition, once skill and efficiency in production have been acquired. As referred to the promotion of industries actually favoured by existing natural advantages within the nation, these arguments are entirely valid, in that the results postulated should follow, and in that they would be of advantage to all the population. This

would be true also in the case of industries in which the acquirement of sufficient skill is the only thing needful for success. But the imposition of protective tariffs has this great disadvantage; what is meant to be a temporary measure tends to become permanent, the protected industries strenuously oppose the removal of the duties even after they are fully competent to meet the foreign producer without protection. Then the protected industry is found to enjoy a monopoly of the home market at a high price, the while it is able to undersell its foreign competitors in a neutral market. Unquestionably the situation then greatly favours the group of producers concerned in the particular industries that are protected, but it is equally obvious that the nation at large will be adversely affected because of the monopolistic position of those industries.

The same ends, protection of young industries, and diversification of industries generally, may be attained more directly and at no greater cost to the nation by national subsidies. A system of national subsidies would make apparent always just how much each infant industry was costing the nation as a whole; and from this balance sheet it could be judged whether continued expenditure was warranted, either as against eventual success, or on the basis of the industry having become sufficiently well established to survive on its own merits. An industry able to undersell its foreign competitors in a neutral market could not with good grace continue to cry out for a subsidy. Curiously enough something of this sort is quite frequently practised in the internal economics of a nation, though its possible relation to industries affected by foreign competition is seldom realized. If the citizens of a given com-

munity, particularly the merchant group, are convinced that it would be of advantage to have a new industry of some kind established in their particular locality they commonly offer inducements to promoters, in the guise of free land for factory sites, or by securing the local underwriting of the enterprise; that is, by local subscription for the stock of the company. In effect these practices are equivalent to the granting of subsidies, and might with equal advantage be applied nationally, through taxation, to provide support for infant industries. However, it is probable that in the future, advances in education, the increasingly rapid dissemination of information on technological subjects and the availability of capital for investment wherever there is an opportunity for profit, will severally and jointly be more effective in bringing about the establishment of new industries than protective duties or subsidies.

But, despite all these considerations, there would not be so marked public approval of a protective-tariff policy among Western industrial nations (England excluded) except for the fact that, in addition to the actually realizable home gain, it is felt that taxation of imports will work to the disadvantage of the foreigner; not only by debarring him from any share in the national market that he may formerly have had, but also in that this deprivation will cripple foreign industry generally and so make it less able to compete successfully in neutral fields. In view of the large part that export of capital has played in world development recently, it may be said, here again, that had the total volume of the world's demand for any kind of goods remained stationary it

might have been possible to handicap foreign rivals by restricting the spheres of their activities. But while the loss of a given market may have brought about, in particular instances, a temporary depression in certain lines of a country's industries, the declines have seldom been permanent, because the expansion of the world market has generally kept pace with all increases in facilities for production.

One further consideration needs to be taken into account, in a discussion of the effect of a protective-tariff policy on the material well-being of a nation, and that is the protection from foreign monopolistic extortion it may afford. The term "monopoly" implies single control of the supply of a given commodity. If that condition were completely realizable, in any given instance, import duties could have no protective value and would only aggravate the predicament of the consumer in the country erecting the tariff barrier. Usually, however, the foreign monopolistic producer only controls a notably superior supply and can only reap so much of an advantage as this gives. If the foreign monopolistic producer then advances the price beyond the margin this advantage affords, less easily available or inferior supplies obtained elsewhere will appear in competition. In the possible instance of an absolute control of supply the monopolist will probably encounter limitations on the demands he can make. Diamonds, of which 95 per cent of the supply is said to be controlled by one company, afford a good example. The demand for these gems is fairly constant at a certain price level. If the company in control should put on the market all it could produce the price would

fall so rapidly that no advantage could be gained. If, on the other hand, it should very sharply restrict production the higher prices resulting would, in like manner, effect a great decline in the volume of purchases and, at the same time, lead to the development of minor sources of supply, the output of which would then compete with the monopoly product in the narrower, higher price market and thus tend further to limit profits. Production of potash and dyestuffs in the United States during the Great War illustrates the effectiveness of a notable rise in price in making available supplies that exist but are not utilized.

An industry, such as that of dyestuffs' manufacture, which is highly specialized and has been long established in one country, but not in others, presents a form of monopoly that affords opportunity for disproportionate gain to the producers, if they can succeed in preventing the initiation of equivalent manufactures elsewhere. The practice of "dumping" is commonly resorted to in order to maintain the monopoly position. The possibility of success in a monopoly enterprise of this nature depends, in addition to the conditions enumerated, on the further requirement that the industry must be one in which increasing production brings increasing returns; that is, one in which the unit cost is lowered as volume of production increases. If, also, it enjoys, in the country of production, the benefit of a protective tariff, a monopoly of this kind may become firmly intrenched. "Dumping" consists in selling goods in a foreign market at so low a price that incipient competition is completely discouraged. Protection in the home market prevents resale there of the dumped goods, and thus enables the producers

to continue in the enjoyment of a relatively high domestic price level, though, of course, at the expense of the home consumer.[1] The volume of demand, that complete possession of the foreign markets assures, guarantees the enjoyment of large returns, even when the goods are sold at low prices in countries where "dumping" must for a time be practised.

It would seem that this sort of a combination would be difficult to overcome, and that its profits, though in part acquired at the expense of the general public in the producing country, must be derived in still larger measure from foreign buyers. Accordingly this appears to be an instance where protective duties, or a subsidy, should by all means be applied in all outside countries where the

[1] The history of the sugar industry is illuminating in this connection. R. T. Hill, in his book, "Cuba and Porto Rico," p. 401, New York, 1898, remarks that the depressed economic condition in the English West Indian islands, then, was due to the failure of England to put a protective-tariff duty on non-British sugars. "But her statesmen have failed to see why the millions of sugar consumers should be taxed for the few West Indian planters, even though the Germans were enriched by British free trade and the islands' prosperity destroyed." At that time British consumers were buying German beet sugar at three cents per pound, because the German Government was protecting the home (German) market and at the same time paying a bounty of three cents per pound on export sugar, while levying an excise tax of two cents per pound on domestically consumed sugar. Thus the protected(?) Germans were paying five cents per pound in taxes to make sugar cheap for the British, and to top it off the protected German manufacturers combined to raise the domestic price. The folly of all this was eventually realized and export bounties were abandoned after the Brussels conferences in 1901 and 1902. See J. Russell Smith, "Industrial and Commercial Geography," pp. 266-269, New York, 1913, for a good summary of this situation.

monopolistic industry has any possible chance of becoming established after an initial period of struggle.

But the case of the foreign consumer, even though no protective tariff or subsidy measures are adopted to establish a competing industry, is not so difficult as this statement might make it appear. In the first place the monopoly, to secure maximum gains, must market the largest possible volume of its product. It will, therefore, be inclined to keep the price to all consumers at all times sufficiently low to get all potential business. That is, the monopoly will profit most by keeping its prices as low as possible in all countries in order to encourage a wider and wider use of the product. If, then, the large-scale monopoly production insures the lowest possible price, there is no gain for any community in establishing a rival industry. If, on the other hand, increasing returns are not so directly related to a larger and larger scale of production and there are natural advantages sufficiently favourable to encourage the establishment of rival industries elsewhere, then it will appear that there are limitations to the effectiveness of the practice of monopoly dumping to prevent foreign competition. Though the home market of the monopoly producers may be protected by a tariff so high as to be absolutely prohibitive to any importations, in the very nature of the situation this can not be the case in other countries. Hence "dumping" in one country at extremely low prices will quite naturally result in resale in other countries, and thus necessitate the marketing of a large proportion of the total output at a positive loss to the monopolists.

If the monopoly depends on patent rights, and resale

in other countries is thereby prevented, the situation is simply one of greater initial efficiency in the producing country; the enjoyment for a period of an advantage that even narrow nationalists agree is only due and right. If the nature of the processes that give the monopoly can be kept secret and the monopoly thus retained, even after the patents run out, failure to solve the riddle is simply a confession of incompetence on the part of jealous rivals, hence, here again, the original producers are only reaping a further reward of their greater efficiency. In other words the case, then, is not one that can in any way be affected by imposition of an import duty.

Finally there remains to be considered, in favour of protective customs barriers, the purely political motive for their establishment and maintenance, embodied in Adam Smith's postulation, with reference to the British 'Navigation Act, that defence is of much more importance (to a nation) than opulence. If national security is held to be promoted by adoption of any and every device that will tend to bring about complete national self-sufficiency, no matter at what cost, it is quite indisputable that subsidies to shipping and protective tariffs will contribute to establish a self-contained national economy. But not even the semblance of complete economic independence could be thus attained by the majority of nations, unless these were willing to enforce measures sufficiently drastic to cause their populations to sink to so low a standard of living that the means would defeat the very end that was sought; namely, national security. For by cutting itself off from all foreign supplies a nation would, in the majority of instances, render itself incapable of making

the instruments and munitions with which modern war is waged.

A few nations possessing wide territories, rich in a great variety of resources, of which the United States is the most notable example, and among which the British Empire, and Imperial Russia, before the Great War, might be included, could, indeed, achieve something approaching very nearly complete self-sufficiency. But in their case, if the danger of foreign aggression actually impended so immediately as to make an attempt at complete self-sufficiency worth while for the sake of defence, the same purpose could be attained, at much less cost to the population as a whole, by maintaining a navy so much superior to that of any competitor that the inflow of supplies from neutral sources could always be insured. Moreover, however completely national economic independence were developed, it would in any event need to be supplemented by as preponderant a navy unless the nation were willing to do battle with an enemy on its own lands, and that would be folly on folly. Great Britain has maintained the superior navy that the logic of the argument demands, and is warranted in so doing in view of her scattered domain and the world relation of international hostility that has existed, and seems bound to persist.

It is not, however, the possibility or impossibility of attainment by a nation of complete economic independence that gives point to argument favouring protection in the interest of national defence, generally, but the particular need of insuring an adequate food supply through a period of hostilities. Clothing and shelter a nation may make some shift to produce, in time of war, or to accumulate in

sufficient supply in time of peace to last through a long period of conflict. But if deprived, when engaged in war, of a sufficient annual supply of food the nation will very shortly be reduced to dire straits. Hence the compelling stimulus to promote the domestic development of agriculture to a point where, if this be at all possible, it may be capable of furnishing at least a rationed supply of food to the citizens. This need was more acutely felt in Great Britain than anywhere else at the height of the German submarine campaign in the Great War. But even if Great Britain had resorted to the utmost measures in promoting agriculture, in anticipation of such a crisis, it is doubtful whether a sufficient quantity of food could have been produced from the soil of the British Isles, alone, to support the resident population.

While most nations are not in quite so tight a place as England is with respect to food supplies, the other European industrial groups are not very much better situated. Moreover, as population numbers will expand everywhere following the introduction of machine industry, based on the opportunity then afforded for the employment of much labour in the processing manufactures, coupled with the possibility of the importation of cheap food from other regions, England's predicament promises to become quite general in all the north temperate lands. It would be possible to put a check on this tendency to growth in population by imposing a protective tariff on food, incidentally making food dearer, and thus compelling more intensive cultivation of the land, but that action would also check the expansion of manufacturing industry. The expedient might be justifiable in the interest of future

generations, but as referred to the present it would have the force of depriving England and any other industrial nations that might apply it, in some measure of the comparative advantage that the efficiency of their labour in manufactures (combined with other natural adaptations and resources of place) has hitherto enabled them to enjoy.

Evidently, then, tariff barriers, at best, can only serve to promote the material welfare of nations when utilized as transitory measures; and are an altogether inadequate provision for insuring national security, except, perhaps, as it is thought in this way to provide for future generations of citizens by checking the growth of national population in the present. Furthermore, as generally applied, protective tariffs operate to the positive detriment of the great majority of people in a country and, by bringing about an inequitable distribution of wealth, do much to intensify the existing state of international hostility.

J. A. Hobson, in his volume on "The New Protectionism," [1] has been able to express, more concisely than other writers, it would appear, the sufficient reason why the doctrine of protectionism has, during the last few decades, met with so much favour by all classes of people in the several nations of the Western world; whereas it might reasonably have been expected that quite the contrary reaction would result from wider diffusion of economic knowledge. Hobson points out that the conscious attention of every man is directed almost exclusively to his own working activities which make him the *producer* of a surplusage of some particular kind of goods. This surplus of one thing he must then exchange for multitudinous

[1] London, 1916, pp. 5-7.

bits of other commodities and services. "As producer he is one, as consumer he is many." Accordingly the producer ego attaches vastly more importance to the amount of return (in money) that it gets for its own product than it does to the amount of goods (actual value) that the money will buy. It is quite obvious that a protective-tariff duty on any one particular commodity will result in a comparative advantage to the nationalist producer of that commodity. It is equally obvious that no great number of particular producers could hope to be advantaged, *directly,* by protection from foreign competition in their special lines. But the appeal of the protectionist argument is even more insidious than Hobson's analysis of the individual producer would make it appear, owing to the fact that its application can be given a geographic turn, in accordance with which protective duties apparently confer general as well as personal benefits. A given *community* is besought to consider the extent to which it will be advantaged if the chief product or products that it markets *within* the nation, but almost exclusively *without the locality of production,* is afforded tariff protection against foreign competition. The individual then considers immediately how greatly his opportunities as a producer will be enhanced by the better market that the prosperity of the local community, resulting from the protective tariff, will furnish for his special kind of surplus. The cycle of effects is in no way different from that postulated in a preceding paragraph, for what is involved is first the exportation of goods, followed by rise in prices in the exporting region, accompanied by comparative advantage in the purchase of imported goods for residents

in the protected area; only here the argument applies to the several communities within a nation rather than to the nation as a whole in its relations with alien producers.

Moreover, while the individual producer in the favoured district is comparatively indifferent to the hardship his community's higher returns may work on the persons in the other domestic communities that consume the protected export product; yet, curiously enough, he is on the other hand capable of thinking generously of other domestic producers, and is quite ready to concede similar protection to them for their export commodity. What he always fails to perceive is that if all producers receive protection his own producer-and-community advantage disappears in his varied needs as a consumer.

That it remains easy to understand the fascination of the protectionist appeals to the common man, with his life interest fixed almost solely on his activities as producer, even immediately after reading Hobson's exposition of the fallacy of the common man's concept of the actual situation, is, in itself, an adequate explanation of the continued popularity of the protectionist doctrine. It should be remembered, also, that in addition to the great numbers who may anticipate benefits from the imposition of new duties, a very large and influential element in the population of protected countries would be discommoded and its vested interests adversely affected by the abolition of existing tariff barriers; particularly those that have made possible the, geographically unwarranted, development of certain industries. And there are many more persons who fancy that they would be hurt by such a change. All of these persons will be in favour of a pro-

tectionist policy. Hence it is quite evident why public opinion inclines so much more toward this than toward the free-trade view that rational consideration would indicate as likely to be more popular; because free trade would conduce to far greater material benefit to the majority of citizens of a nation.

The obsession of the individual by the part he plays as a producer is carried over into his thinking about his own nation in its relation with other nations. By this initial bias he is led to conceive of the home country as a unit-producer in competition with other nations as unit-producers of the same kinds of goods. Indeed, it probably never occurs to him that nations do not trade with each other as corporate units. They might so trade if they were organized as completely socialized states, but quite the opposite relationship has obtained during the period of protectionist revival. Nor are any two nations, as such, hostile competitors for the trade of a third group. Individuals or corporations within each nation have commercial transactions with individuals and firms of other nations, and it is to be presumed that these deals are profitable to both parties to the transactions, just as buyers and sellers within the nation are each satisfied with their respective bargains. If that were not the case international trade would never have developed. Accordingly the average citizen has no greater economic interest in the business affairs of those of his compatriots who engage in international trade than he has in commercial transactions, to which he is not a party, that take place within his own nation. In either instance these commercial activities may afford initially unconcerned individuals

an opportunity to turn an honest penny; for new openings may offer in a going and growing business organization, or these individuals may profit through business ventures of their own that turn on the operations of others. To be sure, expansion and activity of foreign trade mean the possibility of such openings, but except as foreign trade may suggest a wider horizon, the average citizen is as likely to profit by internal as by external developments.

The current misconception under which the nation as a whole is regarded as a unified trading group is responsible for the delusions harboured concerning the significance of a "favourable balance of trade"; the idea that it is a good thing for a nation to have larger exports than imports. Except as special conditions are involved, quite the contrary is the case. To receive always greater value in imports than what was sent out as exports would be a much more enviable status, provided that no further obligations were entailed. That would be an equivalent situation to permitting an individual to go into shops and have goods sold to him always below cost; with the foreign nations accommodatingly acting as the merchants in the case. When the sum of foreign exports through a long series of years always exceeds the imports, a nation is either paying debts incurred earlier, or its citizens are spending money abroad, and traders at home need to send goods to pay for the capital advances or for the services and commodities enjoyed by the travellers. It may, indeed, be a very roundabout transaction, but in the end it always comes to this. If, for example, the home government has borrowed money abroad, it will collect taxes to pay the interest and principal. This money will be

remitted to the foreign holders of the securities. These in turn may use the funds received from the first country to buy goods in a third country, and the tradesmen of the third country may then buy goods from the merchants of the home country; that is, in the nation where the money was originally collected as taxes. In other words, the producers of the country that originally borrowed the money eventually need to render goods or services in payment. What each individual supplies in money taxes is his contribution, in a form convenient to him, toward paying off the debt; what the merchants eventually ship in goods is what the foreign peoples finally elect as most desirable of the home product. If repayment of the loan is made with gold mined in the home country, that gold is simply goods.

An excess of exports over imports in the case of a country whose producers have incurred obligations abroad for domestic development or equipment purposes is an excellent thing; it indicates the solvency of the borrowers. But what really appeals to the unreasoning imagination in the matter of the "favourable balance of trade" is the fond delusion that the sums indicated as the favourable balance between imports and exports pile up from year to year into a huge credit for the home nation, in some way to be jointly enjoyed in the future. The average citizen of a country having for a long period a favourable balance of trade ought, after only a few years of that national experience, to realize that he is as little likely to become a party to the joint enjoyment of the balance as he is to enjoy participation in the undivided profits of a bank in which he owns no stock. But even if he were to share in

the credits that apparently accrue to the nation he would commonly fail to perceive that his satisfaction could only come about through the importation of foreign goods or through the employment of the services of foreigners in their own country.[1]

[1] It happens that the United States, as a nation, is at present actually in possession of the kind of huge foreign credit that the average citizen conceives will result from a favourable balance of trade: the ten billion dollar debt owing to us by the Allies. But will this credit benefit the individual citizen in any way? It is altogether unlikely. If the debtor nations were to pay off their obligations in gold within the next generation or two the only result in the United States would be higher prices, because the funds paid in to our government would be used in retiring Liberty Bonds; hence would come a plentiful supply of money, easy credit, and inflated commodity values at home. As it is not to be expected that the Allies can soon pay in gold, the citizens of the United States now living may look forward to paying off their Liberty Bond indebtedness by internal taxation. Incidentally the Great War cost us over thirty-three billions of dollars. Meanwhile proposals have been made, again and again, that the whole of the Allied debt be cancelled; but no one has ventured to suggest the one way by which the sum could be repaid to the advantage of each and every living citizen of the United States.

Why do the Allies owe us all this money? Because we supplied them with goods and services; we built up, nationally in this case, a huge, favourable balance of trade. How can the Allies repay what we advanced them? By sending us goods and furnishing us services.

In round numbers the population of the United States is one hundred million people. Hence it may be figured that the Allies owe each of us one hundred dollars. Suppose now that each citizen were to be presented with a non-transferable certificate, valid for one hundred dollars' worth of Allied goods or services, and payable serially over, say, a period of fifty years, and to carry interest, also in goods or services, on the deferred payments, compounded and credited to the holders of the unpaid certificates. Then the individual citizen could collect on this favourable balance of trade.

It is not to be expected that such an adjustment will ever be con-

It is worth while to devote much space to the clearing up of these vagaries, for if the peoples of the earth are to enjoy its fruits in mutual goodwill it must be generally realized that there is no basis for international hostility in the statistics of world commerce. In the Middle Ages it was held that the seller was uniformly the favoured party and the buyer was therefore much inclined, after a deal had been made, to "hit the seller over the head with a club" if he got a chance, and in sundry instances he may actually have done that. Unreasonable as this attitude may seem there was in those times considerable warrant for it, because if the seller got gold in exchange for his goods he became possessed of the one commodity everywhere acceptable for any kind of material or services; whereas the buyer, if later disappointed with his bargain, would have many difficulties in exchanging the dry-goods, cattle, or what not he held for something else. *Caveat emptor.* In California people are even now so timid and suspicious that they much prefer to do business with cold, hard cash than with the more convenient paper money. The vendor, the man who gets the gold, has a universal option as to what he will use it for; the option of the holder

sidered; hence it is not worth while to enter here upon a discussion of the practical administration of the project or to answer the objections to it that would be immediately urged. The fact that it will not be considered proves that the individual citizen can not participate even in a favourable balance of trade nationally established. It may also be noted that the Allies would not so much object to this plan as would the shopkeepers, captains of industry, and financiers at home. These would picture all our trade at a standstill. And it would be exceedingly difficult to convince them that home business on the contrary would actually be stimulated through payment by the Allies in kind and in equal share to each citizen.

of paper money, even in these United States, is not quite so broad and sure. The nationalist who shows concern over a decline in the balance of exports over imports, is, due to a rather curious inversion of reasoning, in this "buyer's" frame of mind. He imagines that he sees in those figures an indication of his nation's decline in ability as a seller and develops a personal ill-will against other nationalities on that account. Because nationality is expressed by like-mindedness, and the like-mindedness consists in part in entertaining those feelings, it is easy to perceive how international animosities develop over so variably significant a matter as relative import and export totals. Though abandoned by economists generally, the Mercantile System is still deeply rooted in the popular mind.

If, rather, the typical citizen showed concern over a decline from year to year in the totals of *both* exports and imports he would be representative of a wise nationality in its generation. He would then be saying: The nation's business (in other words, the aggregate of the productivity of the individuals comprising the nation) is declining; and he might reasonably be jealous of other nationalities which were, contrariwise, on the "uptake."

It can not be said that a progressive increase in the combined totals of exports and imports necessarily means prosperity for the people of a nation, or that a decline spells disaster. But the indication would be as suggested in each case. Hence the great folly of putting the emphasis in governmental promotion of foreign trade on export possibilities only. It would, indeed, be much more profitable to send out agents to shop around for desirable

imports, especially in the nature of raw materials. In this last, the matter of raw materials, the real nub of the situation is approached. Each nation desires to market the superior services of its population and to receive in return therefor potentially useful commodities on which but little labour has been performed. Even this very desirable consummation is often overlooked because of the intervention of a third nationality (and a fourth, fifth, etc.) in the transactions involved. To the American it seems almost a good joke when the Britisher takes the Argentinian's beef and pays him good money for it, which the Argentinian in turn invests in American typewriters. But what can the American do with the money? Perhaps buy English woollens—then the joke does not seem quite so good.

If, on the other hand, the consular agent from Washington had busied himself, not only to find a market for the typewriters, but also in spying out some Argentinian product, preferably a raw material, of which the American supply was deficient, he would have performed a really significant service. For, by that action, he might perchance have enlarged the total volume of foreign trade, if the Argentinian product was one for which there had formerly been no demand; and in any event he would have precluded the British merchants from making a profit (selling their product) in the transactions involved.

In the preceding discussion, allusion has several times been made to the broad significance of the continuous expansion of world trade on the subjects under consideration. The pertinence of this factor may be made more comprehensible by examination of a specific instance, the

commerce in tin plate. This commodity is selected, particularly, because it was the material about which the argument centred in the presidential campaign of 1888 when the tariff policy of the United States was the issue. In 1864 a tariff law had been enacted which was intended, perhaps, to put a heavy protective duty on tin plate, but which was interpreted as imposing only the same *ad valorem* duty of 25 per cent on tin plate as on the raw metal. As the United States mines only a very small amount of tin within the national territory, the tariff of 1864 affected the tin-plate industry very little, except as it made prices for that commodity higher to the American consumer. Possibly on account of development of efficiency in the production of the iron plates over which tin is coated, four tin mills were, however, established in the United States by 1873 and their owners sold tin plate at about the same price, $11 per box, as that charged for the imported article. What did the English do when they heard of the American production? In the words of G. B. Curtis,[1] an ardent protectionist, "Just what they have always done and what they always will do when they find us unprotected. First they reduced their prices lower and lower until they went to less than $5 per box. By this time our manufacturers could no longer compete and were forced to stop manufacturing. Just as soon as this was accomplished up went the English prices again and for nearly twenty years we were at their mercy." But on page 465 of the same volume, Curtis has a table of the prices of tin plate at Liverpool for the years 1863-

[1] "The Industrial Development of Nations," Vol. III, p. 122, Binghamton, N. Y., 1912.

1892 in which it appears that prices not only fell after 1872 but continued to fall through all the years down to and including that of 1892, so that the price in the last year was less than one third what it had been in 1872, when it was highest. Evidently development of English tin and iron resources, coupled with increasing skill and efficiency in production, were enabling the English manufacturers, *competing among themselves,* to reduce prices in endeavouring to market their wares.

In July, 1891, a tariff duty of 2.2 cents per pound was put on tin plate entering the United States. This was severely protective, and by 1893, under its stimulus, over one hundred tin-plate mills were in operation in the United States. (Curtis, Vol. III, p. 124.) Between 1891 and 1898 imports of tin plate fell off from twenty-five million dollars to three million dollars. The price of the foreign product immediately declined about one fifth. The American product sold at a price equivalent to the English price, plus the amount of duty and less the cost of overseas freight charges.

Quite evidently the loss of the American market and the accompanying decline in price must have severely affected the British tin-plate industry. In 1889, a Mr. Taylor (quoted by Curtis, Vol. I, p. 321), speaking for the English tin-plate trade, pointed out that, irrespective of prices, the business had developed steadily and regularly for twenty years past. He said, further, that if the prospective American high tariff were imposed, English manufacturers would need to lower production costs to hold the business, and that this could only be done by a reduction in wages. Whatever steps they took, it appears

that the English were not able to hold the American trade and the English tin-plate industry suffered a serious depression. It will at once appear that the American protective tariff was not conducive to the enhancement of international amity in the southwest of Great Britain at that time.

Why, however, was it possible for the United States makers to sell tin plate at no higher price than the English product had commanded before the protective duty was imposed? Chiefly because, during the years intervening between 1873 and 1891, the American iron industry had been developing on the basis of vast resources of coal and ore. The increased efficiency in this branch of manufactures, acquired concurrently, extended, no doubt, to the making of the "black" plates on which the tin is coated. Moreover, the Cornwall mines were no longer the chief sources of ingot tin. The Dutch production in Banka and Billiton had grown so large as to preclude any possibility of monopolization of the source of raw material by the British. Due to these factors, the price of domestic tin plate actually declined about 10 per cent between 1899 and 1910, and this despite the fact that a combination of manufacturers was considered to be in control of the industry. That foreign producers had not, meanwhile, lagged behind in technique is indicated by the fact that many tons of tin plate continued to be imported into the United States for a special purpose. A drawback of 99 per cent of the duty imposed was allowed on all importations of tin plate used to make containers for American food products sold abroad. The foreign buyers of American canned goods evidently still found it advantageous

to buy the tin plate needed for packing these goods outside the United States; which meant that, even if prices had declined, domestic consumers continued to pay more for tin plate than it sold for in foreign markets.

Moreover, the lower foreign prices were not due to the pauperization of the English industry from loss of the American market. While this loss brought about a depression at the time, because the equipment and labour force in England had been developed on a scale to care for the large American trade, the slump was only temporary, as is evidenced by a statement in the *Britannica Yearbook*, 1913, page 568, in part as follows: "The revival of prosperity in the tin-plate trade which began in 1898 continues unchecked. . . . In 1911 the Welsh tin-plate trade broke all records." The increased consumption of tin plate—expansion in world commerce in that commodity, in other words—was sufficiently great, in the interval mentioned, to permit the full recovery of the British industry, and its continued growth, from 1898 on, though the United States production had meanwhile been added to the world's supply. American production, significantly also, had itself more than doubled in volume *after* the time when importations for domestic consumption practically ceased. Moreover, of the total world production of block tin, that mined in England now only constitutes 5 per cent, and the English tin-plate industry was further handicapped in its expansion because the world total of tin mined increased only one third in the first ten years of the new century, while the price of the metal increased threefold between 1897 and 1907. Had raw tin production kept pace with the demand for tin plate, prices would have

been still lower and world consumption would, no doubt, have been even greater.

The expansion of world commerce, resulting in part from increase in population, has been sufficiently great to account for the fact that, whether fostered by protective tariffs or not, the older establishments have been able to maintain themselves and to grow despite development of the several industries at new places. Steam transportation is in large part responsible for the rapidity of the expansion of world trade, because the carriage of bulk goods has been greatly facilitated by this means. One of the significant reasons for the increasing efficiency of ship transportation is commonly overlooked and is, therefore, deserving of mention here. In the earlier type of wooden ships 50 per cent to 60 per cent of the total displacement of water by the loaded vessel was due to the weight of the ship itself. In iron ships this vessel-weight displacement was reduced to 40 per cent, in steel ships to 35 per cent; the load-carrying capacity has, accordingly, been progressively increased, independent of the improvement in ocean transportation due to perfection of the propelling machinery. There is no limit in sight to the world's capacity for goods; overproduction, even if designated "misdirected production," of any commodity having real utility value is scarcely possible, except as facilities are not available for its economical distribution from the source, or as the returns of labour are in too large measure diverted to accumulation of capital. This last, the accumulation of capital, introduces another and, in recent years, perhaps the most potent factor in the perpetuation of international animosities.

That some individuals and groups within a nation profit richly by the imposition of protective tariffs may not be doubted. Accordingly they accumulate a surplus of capital, or, what this amounts to, ability to command the produce of others. Certain energetic and enterprising individuals without tariff protection are also able to amass great wealth. However acquired, this wealth, or potential credit, is a diversion by so much from the current barter possibilities of world trade. Investment of this wealth supplies the means for the expansion of commerce and industry, but the interest charge that the owners make for the use of their funds, levied eventually in goods or services, maintains a number of potential producers in idleness and enables them, further, to command the energies of a still greater number of workers in rendering personal service. If everybody worked, and the exchange of products was on an ideally equitable basis, there would be no limit to the capacity of the world to consume the products resulting.

In so far as this surplus of wealth in the hands of a few is invested within the confines of the group (nation-state) which has produced it, the results are simply that the workers must support the drones and that, by providing new equipment for production, capital in time succeeds in developing an output in excess of the absorptive powers of the group. Needing to pay a continually increasing percentage of their product to capital, the workers can not, of course, acquire and consume the progressively expanding volume of goods that results from larger and larger capital investment for equipment. The result is overproduction, or better, underconsumption, then a panic,

accompanied by a shrinkage in capital values, after which a new start is made. This inflation-depression sequence which must result from its normal functioning is the notable defect of the capitalistic system.

The application of steeply graded inheritance taxes is apparently the most feasible remedy for the evil of too rapid accumulation of capital. The holders of the surpluses have, however, meanwhile solved the problem to their own satisfaction by exporting capital. Exported capital, in vast amounts, has been used to exploit the resources, human and natural, of nearly all the backward countries. It has also been employed in new developments within the industrial nations, but outside the region or national group where it was accumulated. While the pressure for opportunities to use export capital in backward countries, or the complications that result from its actual investment in such areas, are the particular origins of much international hostility, it will be interesting, before inquiring as to the reasons why this should be so, to consider the effects on national economy of exporting capital to be used in other advanced industrial nations.

Employment of foreign capital in the home country under the direction of the foreign owners would seem to be a development especially calculated to occasion chauvinistic heartburnings, but does not appear to have caused any popular stir; either because the extent of such operations is not realized or because their significance is not understood.

In order to avoid the payment of duties, or more strictly, in order to be able to compete with the native producer in other countries, on the basis of equal cost to

the consumer, American capitalists have in recent years set up branch factories, in a very considerable number, for the making of their wares in European countries. If the product of these transplanted industries is a bulky one, establishment of branch factories abroad also obviates a large item of cost in ocean freight charges. Accordingly, American sewing-machines, printing-presses, tools, electrical machines, agricultural machinery, and many other commodities are made in American-owned factories in Canada, England, France, Belgium, Russia, and Germany, as the case may be, to supply the domestic markets of those countries. On the other hand, the activities of the American Alien Property Custodian disclosed the fact that some seven hundred million dollars were invested in enemy owned and managed factories in America, producing goods in the United States that had their initial development abroad, but which later were made here in free competition with commodities of American origin, produced in American-owned-and-managed factories. To what extent capitalists of the allied and neutral countries were operating industries in America, under similar arrangements, before the period of the Great War was not reported.

But it is sufficiently evident from the facts available that, while the home market and the home price level and standard of living may be maintained under the protective-tariff system at the expense of the home consumer, this system does not prevent the export of capital by the domestic producer to develop industries in any other country where there is a market, and where the natural resources and the efficiency of labour are such as to enable

him better to meet competition in that country than by using home labour and home materials and marketing the finished product abroad under an adverse tariff handicap, or even only that of a freight differential.

As referred to the promotion of international amity, this practice is actually to be commended. In effect it conforms to the geographical principle of production in the places best adapted for any given industry and nearest the place of consumption. If the workers in the several countries concerned had a hand in these developments it would be as if they had jointly agreed upon a live-and-let-live policy. But it will immediately appear that the workers in the country where the capital originated do not in any way share in the profits of the foreign enterprises that are set up with it. On the other hand if a "favourable balance" of trade is a national desideratum, it is also evident that this is a "fine" way to pile up the export figures. For the German owners of American plants must eventually have been paid their profits in American commodities, whether by direct shipment to Germany or shipment to a third country. The profits of the American-owned industries abroad would, of course, offset this movement, hence only as foreign capitalists made more out of the American business than Americans made out of foreign business could domestic export figures be enlarged as a net result. From these considerations it becomes clear how uncomprehending the average citizen is of the true situation in respect of international trade, and how futile his enthusiasm over either export or import statistics. Critically studied, these may give some

indication of the actual prosperity of a country; casually tabulated, they have no significance in this connection.

And if the export of capital to industrially advanced nations that impose protective tariffs is not deemed to involve the problem sufficiently to negative the popular concept of international trade relations, then the extreme case of the French-Belgian border industries may at least convince some that there are complications to be considered. According to Raoul Blanchard,[1] the Lille group of industries "situated near the Belgian frontier profits by the differences created by the custom duties between France and Belgium. In Belgium, a country of free trade, where the cost of living is less, Lille recruits its army of labourers at a low wage. These labourers, taking advantage of the proximity of the frontier, work in France without losing the privilege of living in Belgian territory; and so the factories of Lille, enjoying a protective tariff, have at the same time plenty of Belgian labourers who accept a lower wage than the French could do. This artificial condition, favourable to both employers and employees, is the principal cause of the enormous development of the group of cities comprising Lille, Roubaix, Tourcoing, and Armentières, which, with their 150,000 workingmen, form one of the most important industrial centres of western Europe." How the French workmen and manufacturers, who need to compete with this "artificially" situated group, for the French, "protected," home market feel about this peculiarly advantageous combination, Blanchard does not relate.

[1] Flanders, *Geographical Review*, Vol. IV, No. 6, p. 431, Dec., 1917.

While the export of capital from one industrially advanced state to another may afford occasion for comment on the futility of protective tariffs, foreign investments of this kind ordinarily give little reason for international complications. The only person who, in this situation, can be held an offender is the native investor who exports his capital and thus promotes industry outside his own country. Moreover, as indicated by the figures quoted above, international investments before the war tended to balance one another. If an American capitalist established a branch factory in Germany, a German syndicate's American promotion in the United States probably offset it. The element of political danger involved brought "reciprocity" of this kind into high disfavour with all the belligerent Powers, once the investigations occasioned by the Great War made evident how extensive these foreign holdings were.

During a time of peace, however, investment by foreigners is unlikely to develop economic friction leading to international irritation. The industries initiated by foreign capital give employment to a numerous group of the population in the nation in which they are located. The exporting capitalist, on the other hand, feels that his investment is sufficiently protected by the orderly legal processes obtaining in the country where the funds are risked; the sufficient measures in force there, as well as at home, for safeguarding title in property. Accordingly there is no occasion for appeal to the home government for support in these foreign enterprises. Indeed, as events have proved, investments made abroad by the enemy were just as safe as investments in his home coun-

try, for even the individual German capitalist will only lose by his commitments in England and America in accordance with the ability or willingness of the German nation to repay him, because his possessions were taken over by the British and Americans in compensation for war claims against the German nation as a whole.

It is otherwise, however, with the export of capital to regions occupied by backward peoples, or by peoples of high cultural status but in the domestic stage of industry. A very large percentage of all the difficulties consequent upon European international rivalries, and the animosity these engender, find their origin in the conditions of foreign investment in the industrially unexploited lands. Owing to the high degree of self-sufficiency, attained and attainable in the United States, because of its wide territory and wealth of varied resources, and because of the fact that the opportunities these resources afforded were available up to a very recent time for virgin capitalistic exploitation at home, foreign investment by American capitalists in backward countries has been, up to the present, of little moment or volume. In the last score of years, increasing economic penetration of Mexico has, however, given rise to the same sort of agitation that has been for a much longer period at the root of European national jealousies.

Brailsford [1] has so completely set forth the actual conditions under which investments are made in backward regions, and showed the relation between specific instances and current international polity so clearly, that only the

[1] A. N. Brailsford, "The War of Steel and Gold," ninth edition, London, 1917.

general outlines of the subject need be presented here. As Brailsford puts it (p. 78), "trade does not follow the flag; the flag follows investments." The foreign trader has at stake only his investment in the deals of the moment. When difficulties threaten in some remote region, the exporting capitalist, on the other hand, is tied up in the country itself, his capital is part of its plant. The exporting capitalist is, therefore, wishful above all to be in political control of the region in which he is operating, so that he can guide law-making along lines that will insure him the greatest profit and security for his investment. When either the profit or the security is threatened the capitalist quite naturally makes an appeal to his home government for protection; and intervention is the logical result. The weaker state, or the people of a backward region, are, by armed force if that is found necessary, compelled to adjust their internal affairs so that they best fit the needs of the foreign concession holder. A first effect, then, of foreign investments in a backward nation is to lead the people of a strong nationality to make war on a lesser group, solely for the private profit of the stronger groups' exporting capitalists.

While side issues of various kinds may also be involved, the true basis of all imperialistic policy is to be found in this supposed necessity for safeguarding the interests of the nationalist investor operating in undeveloped regions. Attacks on weaker peoples, involving, incidentally, loss of life and the maiming of soldiers of the invading army, only for the safeguarding of the selfish interests of the capitalists, would be a deplorable enough evil in itself; but that is only the beginning of the snarl. The exporting

capitalists want, not only to be protected in their concessions against adverse political measures inaugurated by the occupants of the territory in which their enterprises are located, but also to be insured against competition by rival capitalists from other countries. As the capitalists are in a position to bring strong pressure to bear on the governmental régime of their home country, both because of popular nationalist sentiment and because of their financial connections, they greatly influence the home government's "foreign policy," and cause it to proclaim "spheres of influence" in the undeveloped regions. The very necessity for becoming thus nationally involved indicates the possibilities of friction and dissension between great Powers. In these ways the seeds of future wars between "rival" industrial nations are sown.

Why should capital be available for export and investment in these enterprises that create international discord and war? Why should capital be so greedy of investments in backward countries, and what interest, if any, has the average citizen in the imperialistic, sphere-of-influence policy and the conflicts that the enterprises which make this policy necessary evoke?

Certain efficient, protected, or patent-monopoly industries in the exporting capitalists' countries earn exceedingly large dividends; Brailsford cites Lancashire textile mills paying 35 per cent in a good year. The stock owners, usually comparatively few individuals in the cases where abnormally large profits are divided, may consume part of their excessive returns in luxurious living, but the bulk of these profits serves only to increase capital funds. As it may be presumed that the home

market is supplied with all the goods (of the particular kind produced by a given mill) that it can consume at the prices that must be imposed to yield so high returns, it follows that the increased capital can not be used to advantage in enlarging the plant. The alternatives, therefore, are to use the accumulating funds in multiplying facilities of production in some other line, thus coming into competition with earlier established native producers in those fields, or to expend the surplus moneys in foreign investments.

The owners of the lucrative industries might, of course, adopt some plan which would reduce the rate of dividend and thus avoid having large surpluses of capital accruing. Part of the profits could be distributed in higher wages. The home market would then expand for all kinds of commodities. What the few capitalist stock-holders are unable to consume in luxurious living, the many wage-earners can readily enough utilize to purchase comforts. Or dividends might be reduced by lowering the price of the product. If, then, this product should be wares of a kind for which the demand is inelastic, constant, regardless of price, the consumers of the nation would enjoy a saving to use for other goods. If, on the other hand, the goods were of a nature that an increased demand would result as prices were reduced, then the wider market would lead to the expansion of the industry itself. Adoption of any of these courses would result in increased prosperity for the nation as a whole. Contrariwise, export of capital can only bring a home profit to the individual or group doing the exporting. Nevertheless nations are called upon to fight, most often, to protect just these

narrow, selfish interests that are involved in foreign investments.

It is true that shrewd capitalists have realized the possibilities of expanding home consumption by reducing prices and paying higher wages. A certain automobile manufacturer has demonstrated that this, theoretically indicated, procedure is successful in practical application. To be sure the landlords in the vicinity of his plant immediately absorbed a large percentage of the wage increases he granted, by raising rents. But even if this action on the part of real-estate owners did restrict the benefits to a narrower circle than the manufacturing capitalist had intended, the wage increases in any event made it possible for a number of landlords, who might otherwise have been unable to afford them, to purchase automobiles. Thus demand was increased by at least so much, and the larger scale production resulting made it immediately possible to reduce manufacturing costs, and this in turn led to further reduction in the price of the product. The ultimate capitalistic profit was probably greater than if a restricted output, high dividend, policy had been followed.

But the course herein suggested involves tremendous expansion of a given plant and eventually vast managerial responsibility. It is just because foreign investment in a backward country does not entail this degree of competent and persistent, personal attention, to insure a given return, that its lure is so great. Investments in backward countries are "get rich quick" propositions appealing to "slacker" capitalists. When difficulties arise the nation is called upon to pull the chestnuts out of the fire, whereas, in home investments, bad judgment, bad practices, and

bad management result simply in bankruptcy proceedings. It is, therefore, commonly much pleasanter for the capitalist to maintain a tight little business at home and to speculate abroad with the fat surplus its high rate of dividend makes available to him.

No very searching inquiry is necessary to discover the particular reasons why investments in backward lands are so attractive to the capitalistic speculator. These ventures, (*a*) afford great possibilities of getting possession of some vast natural resource at small cost, (*b*) they offer opportunities for profit by "graft" practices, and, (*c*) often yield large returns through treatment of labour in a way that would not be tolerated in the exporting capitalists' home country. The Russo-Japanese War is said to have resulted from the failure of Russia to keep her pledge to evacuate southern Manchuria, and to abstain from further encroachment on the Japanese sphere of influence in northern Korea. The Russian bureaucrats were sincerely disposed to yield, but the Tsar and some of his courtiers had a rich timber concession on the Yalu River that they were unwilling to give up. Consequently Russia suffered from a disastrous war for the sake of possible profits to this little group.

In Turkey a railroad was built over a level plain in a series of vast curves, touching on no more towns, because of its sinuosities, than if it had been built on a single tangent; indeed it even seemed to dodge the centres of population. The explanation was simple. The company had obtained the concession to build the railway by bribery, and it was part of the terms of the contract that the Turkish Government guaranteed a certain profit on

every mile of rail laid down. As every curve added to the number of miles, and as the profit was assured in any event, it served no purpose to cater to traffic needs by touching on the spots where shipments might originate. The profit, moreover, had necessarily to be exacted from the Turkish population in taxes, and it was further understood that if the Turkish Government failed to pay promptly the fleets of the capitalists' home countries would steam to Turkish waters to enforce payment of the moneys due the exploiting companies.

In India, cotton ginners work seventeen hours, Bombay cotton mill workers thirteen hours, Calcutta jute mill labourers fifteen hours a day. The wages received by these Indian labourers range between five to ten dollars a month. Even if the long hours only serve to make up for the lesser skill and intelligence of the Indian workers, competing with English labourers in Manchester and Dundee, there is no offsetting the fact that the rate of wages paid in India is only one fourth as high as that prevailing in Great Britain.[1]

The examples of exploitation of backward countries by foreign capitalists cited above are typical, and it is evident that they are of a nature readily to create complications that eventuate in the taking over of political control by the nation in which the export capital originated. Ignoring the possible danger of a clash between rival capital-exporting nations that the assumption of political domination of a backward region by one of them may bring about, that act, when accomplished, gives rise to further capitalistic opportunity. The investors of the nation

[1] Brailsford, *op. cit. supra*, p. 83.

which, under those circumstances, takes up the "white man's burden" are then assured of favoured treatment in connection with all governmental enterprises; particularly in the construction of public works of different kinds for the improvement of the country. Moreover, there are all sorts of administrative posts to be filled by nationals; that is, by the younger sons of the ruling and capitalistic classes. James Mill defined the Indian Empire as a system of outdoor relief for the English upper classes. Thousands of Britishers have official positions in Egypt and India. Their support is derived from taxes levied in those countries.[1]

Moreover, armed uprisings of the native populations in any part of these dominions necessarily constitutes a danger to the life of some relative of nearly every influential family in the home country of the ruling nation. Hence the insistence by the governing classes at home that any revolutionary movement in the crown colonies or dependencies of the empire be immediately and mercilessly suppressed. Not even the United States is altogether free of that particular kind of entanglement, for if the Philippines are granted independence many American

[1] To show that this is not a vague indictment based on conditions that no longer prevail, the following specific and recent instance is quoted from an article in the *New York Times* entitled "Egyptian People Less Anti-British," April 24, 1921, sec. 1, p. 19: "After taking their degree (in England) young Egyptians applying for positions under their own government are given subordinate posts at a salary of about $75 per month and are called upon to instruct in their duties the younger sons of good families in England, who have been pitchforked through influence into positions paying $250 per month without speaking any language but their own, and with not the slightest knowledge of the country or its people."

officials and school teachers will no doubt very shortly after be out of jobs. Though their numbers are few, in comparison to the foreign-service personnel of other nations, nevertheless these Philippine office-holders undoubtedly have a considerable following of interested relatives and friends at home and together with these could exert a considerable pressure for the maintenance of the *status quo*. It is easy to perceive that imperialism has a popular appeal, and that once a nation is embarked in an imperialistic career the undertaking can not be lightly abandoned.

Yet the cost of imperialistic expansion is altogether disproportionate to the gain which the nation as a whole can derive from it. Practically all the vast expenses incurred by the modern industrial nations for armament are owing to the necessity of protecting the areas that are being exploited by any one group from the encroachment of rival exploiters. Brailsford [1] estimates that of the increasing sums which Great Britain and Germany spent on armament in the last hundred years, 50 per cent was necessitated by the question who shall exploit Morocco, 25 per cent by the Bagdad railway project, and the remainder by the possibilities involved in the future of China, of the unappropriated African territory, and the like unsettled questions. The pressure for a larger navy in the United States is due to fear of possible European aggression in Latin America and to the need of protecting Hawaii, Porto Rico, and the Philippines. The obligations of the Monroe Doctrine have the merit of not being undertaken for a sordid purpose, but the cost they entail is

[1] *Op. cit. supra*, p. 247.

nevertheless imposed by the possibility of imperialistic enterprise in South America by others. The armament cost to Great Britain and Germany probably far exceeded the total income derived by the favoured British and German capitalists, and the place-holders, from foreign possessions and, even if it did not, this cost was paid by the peoples as a whole and not solely by the individuals who received the benefits; as it should have been. The average citizen derives but little return from the pursuit, successful pursuit indeed, of an imperialistic policy by his government, except as his warped sense of national pride is gratified.

Futilities. That one term would serve to label neatly the complete assemblage, almost, of political measures designed to promote the economic advancement of nations, each on its own account, selfishly. Such measures are futile primarily because they are nearly all conceived under the false premise that complete self-sufficiency and independence is the ideal status to be striven for by each nation. As should be apparent after a perusal of the foregoing pages, the problem of international relations, both in respect of greatest economic gain and of continued amity, admits of only one solution, no matter from what angle it is approached. Complete economic independence can not be attained by any nation except at the cost of impossible sacrifices. Moreover, not only do the devices and stratagems contrived to this end defeat their own purpose often; they also engender international rivalries and the ensuing animosities which may culminate in war. Neither the devious intricacies of the tariff nor imperialistic expansion serve the common good. Individuals

within the nation may profit by restrictions to international commerce or by governmental policies in furtherance of imperialistic expansion, but the cost of these pursuits to the whole nation is more than the aggregate gains of the individual citizens who derive a preferential advantage.

Not even a nation so happily situated as is the United States, with its great wealth of varied resources and wide territories, can hope to be completely self-sufficing, if Americans are to enjoy all the advantages and material comforts that modern industry and world exchange of commodities have made available. Some almost indispensable raw materials would need to be got from foreign sources. And even if the raw materials were all available, labour can be more effectively utilized, in fashioning certain products, in one country than in another, and it is no less important to world advancement, and specifically to the profit of the United States, that the native endowments and acquired skill of other peoples be conserved to the purposes they can best serve, than that domestic natural resources be exploited. Again, the undeveloped resources of the land occupied by the backward peoples of the earth must be made available for the common benefit of mankind. Hence it appears that it will only be possible for nations to exist together in amity and to enjoy to the fullest extent all that the earth affords for material well-being when there has been gained complete acceptance, by all national groups, of the principle of interdependence of nations; that all peoples will profit most by so functioning within their own lands as best to serve world needs and to satisfy their own wants.

CHAPTER VII

INHERITING THE EARTH—THE TEMPERATE ZONES

If the civilization of early Egypt is not actually the most ancient that has existed in the world, it is the one which best serves for the study of the beginnings of nationality, because the record of Egyptian development has been so much better preserved, or at least better deciphered, than that of the other ancient regional communities for which this distinction might be asserted. Moreover, Western civilization, in its Greek and Roman origins, had contacts with the ancient Egyptian culture, and there has been a progressive geographical migration of the centres of most efficient organization from Egypt to Assyria, Phœnicia, Greece, Rome, Venice, and Spain, in turn; and then to northwest Europe and to the New World. Because, then, there is this line of connection, between an ancient civilization in a tropical land and the modern nationalistic and industrial organization of the Temperate Zones, a discussion of how the areas of the higher latitudes may be occupied to the greatest advantage of mankind may well be introduced by a consideration of the environmental relations of the successful community economy of early Egypt, noting particularly how the situation under the warmer sun, in conjunction with other factors, fitted Egypt especially to be the cradle of national organization.

The most remarkable feature of Egyptian civilization was its stability and endurance. It continued for periods of five hundred years on the same secure basis and practically without interruption. An Egyptian super-Methuselah, who may be conceived as having lived through all the long ages of his country's national existence and down the years to the present time, would no doubt regard the many and varied political upheavals and territorial changes that have occurred in the European world, since the decline of Egypt, with a sense of insecurity similar to that with which the present generation looks upon the revolutionary shifts, separated by much shorter intervals of time, that have been the notable characteristic of Latin American history since the Spanish occupation. Since Egypt's day and particularly after Rome's decline, the world has been, and is, a scene of turbulence.

Nevertheless, the explanation of Egypt's stability is relatively simple. Its fundamental fact is that the land always afforded an ample supply of food for all the population. The second fact is that this food supply was the one opportunity of the Nile region and the only necessity of its occupants. There was little need for elaborate shelter, or for fuel, or for warm clothing. Except for differences in the degree of physical leisure and of personal ostentation possible to the several classes, rich man and poor man, in ancient Egypt, shared alike, to their fill, in the one resource, food. So abundant was the agricultural yield, indeed, that it was readily possible to divert a large proportion of the available labouring force to the building of palaces, temples, and tombs without impairing the standard of subsistence enjoyed by all the

inhabitants. Workmen employed in the necropolis of Thebes went on strike because they failed to receive their rations. But this shortage seems to have been due rather to the lack of foresight on the part of overseers, in keeping filled the particular granary from which the workmen drew their supplies, than to any general scarcity of food.

The Egyptians of the Pyramid Age had few or no contacts with the outside world; they had neither the occasion nor did they possess the means for foreign travel. They could not go far in their own country except along a north and south line and it was both easy and inexpensive to float down, or sail up, the Nile on a barge. As a nation the Egyptians did not, in the older days, attempt widespread conquest. Except for the "monumental" aspirations of the rulers there was no way in which wealth could be dissipated on any large scale to indulge the few. Egypt was almost a socialistic Utopia in that there were plentiful nourishment and comfort and amusement of the same kind for all its inhabitants, in that everyone worked, and, further, in that trading for profit was practically non-existent, and in that there were no capitalists; for the title to the one source of production, the land, was ultimately vested in the Pharaoh as trustee for the nation as a whole. The great lords who controlled these estates were only the Pharaoh's stewards.

There is, however, one puzzling feature, in regard to the Egyptian régime being so long and uninterruptedly feasible, and that is: why it was that the numbers of the population, under the easy conditions of life that prevailed in the Nile valley, did not outrun subsistence. Neither birth control, nor infanticide, nor summary disposal of

the unfit, infirm, or aged seem to have been practised, and there were no decimating wars or pestilences. It may be that the successive increments of land, which were from time to time brought under irrigation culture, provided so disproportionately great return in food as altogether to exceed any demand due to normal increase in population. If increase of population was unrestrained, this seems, in view of the evidence afforded by modern census returns of the rapidity of world expansion in population possible under favouring conditions, a most remarkable achievement. The Egyptians, however, unlike any other nation, despite the length of their tenure, and the strictly agricultural basis of their existence, were never under any necessity of practising crop-rotation or other devices to preserve the fertility of their soil. The Nile flood, which each year brought the life-giving waters to the land, also automatically renewed the soil by depositing on its surface an additional film of fertile sediment.[1]

China, practising a political economy similar to that of the ancient Egyptians, though perhaps on a lesser basis of fertility, has been for ages a land where, over large areas, because of the density of population, the peasant proprietor only manages to secure a scant livelihood by dint of unceasing toil and the utilization of every possible

[1] J. H. Breasted, "A History of Ancient Egypt," pp. 92-93, second edition, New York, 1916. "Five centuries of uniform government with centralized control of the inundation, vast systems of dykes and irrigation canals had brought the productivity to the highest level, for the economic form of this civilization in the Old Kingdom, as in all periods of Egyptian history, was agriculture. It was the enormous harvests of wheat and barley gathered by the Egyptian from the inexhaustible soil of his valley which made possible the social and political structure we have been sketching."

expedient to maintain the productiveness of the soil. Surprising as it may seem, the Chinese, despite their intensive garden-agriculture, actually waste much land that could be cultivated; in the boundary zones between their small patches and in immense areas permanently devoted to graveyards.[1] Yet, while under British administration the extent and yield of arable lands in India have been increased considerably, the increase in the native population of that peninsula has been so nearly proportionate to the thus augmented food supply that famine threatens, much as in the past, if the moisture-bearing monsoon-winds fail in any year to supply sufficient rain for full crops.[2]

The decline of Egypt began with the regular export of its corn to Rome. Not even the vast surplus of the Nile lands could suffice against the indefinitely extended drain upon their resources as was then made, especially when there was no return in kind. The Mediterranean lands did not yield nearly so richly of food as did those of Egypt; moreover, the Roman cultivation was not nearly so intensive and systematic as that of the Pharaohs and, in the days of Rome's rule, was notoriously inefficient and

[1] L. H. Bailey, "What is Democracy," pp. 127-128, Ithaca, N. Y., 1918.

[2] See E. J. Simcox, "Primitive Civilizations," Vol. I, London, 1894; J. H. Breasted, "A History of Egypt," second edition, New York, 1916; A. G. Keller, "Colonization," Boston, 1908; J. L. Myres, "Dawn of History," London, 1911; J. Fairgrieve, "Geography and World Power," New York, 1917, and F. H. King, "Farmers of Forty Centuries" (China), Madison, Wis., 1911, for more comprehensive accounts of the geographic situation and national economy of early civilizations.

ill-adjusted to the actual needs of the mass of the population.

With the shift of cultural development to the colder, forested lands of northwest Europe the relation of subsistence to population became still more difficult. In the Mediterranean area man is especially favoured by the absence of the most adverse climatic condition—namely, a hard winter; because of the protection from cold winds afforded by the east-west mountain barrier to the north and because the inland sea conserved the heat of the warmer months long after summer drought had given place to winter rain. The rainfall, further, of the Mediterranean lands was seasonally distributed so as to preclude the growth of dense forests; accordingly it was relatively easy to introduce the cultivated, grain-yielding annuals; and trees, like the olive and sweet chestnut, that furnish fruit, oil, and nuts, and the need for fatty or nitrogenous food was comparatively slight. Glaciation, moreover, had rendered much of the land north of the Alps intractable, so that, even after this land had been largely cleared of forest, centuries of labour were required to make the ill-drained surface really fit for human habitation.[1]

In other words, the centres of the most advanced civilization have, since the time of Egypt's apex, shifted to regions where sustention of human life is a much more difficult and more complex task, both for the individual and for the community. Other needs than those simply of a full belly had to be provided for, and a greater

[1] See L. W. Lyde, "The Continent of Europe," Chap. II, London, 1913.

demand has been made on human energy and ingenuity. The Oriental culture, developed almost exclusively upon the productiveness of the soil, still remains, as in China, but it is a mistake to think of it as comparable with that of the West, and differing from Western culture only in kind but not in degree. The Western culture is a superior culture. The development of civilization may be defined, not only as that of progressive elimination of waste of material resources and of human energy, both mental and physical, but also that of an increasing utilization of all the resources of the earth for broadening the life of man.

The civilization of the temperate lands has also spelled advance of another kind; the progressive freeing of the individual to realize his own life in fullest measure, while nevertheless remaining a member of the national group. The summer-winter, forested, glaciated environment required that the individual exercise his faculties at a variety of tasks, if he was to make himself its master, and in return rewarded his specialized effort by a greater wealth of experience; which connotes a greater enjoyment of life. It is the environment of the temperate lands, the greater complexity of existence this occasions, that has created the problems of modern politics; and if these have not yet been solved it is because, so far, the organization of society has lagged behind the requirements put upon it by the needs of the individual in the higher latitudes. It only adds to this difficulty that, on the one hand, the expanding Western culture is striving to lay its hands upon the tropical areas of earlier development, and that, on the other hand, the peoples of the warmer climes are coming to a realization that they can themselves well adopt

something of what has been wrought in the West and thus anticipate the ordering of their national life by aliens.

But for all the complexity of life that has been brought about by the advancement of civilization through the occupation and domination of the temperate lands, with the accompanying emergence of the individual from the mass, it remains true, as in Egypt's day, that, fundamentally, a nation can prosper only in accordance with the measure of resources that its territory affords. It might indeed be possible for a nation situated in an altogether sterile environment to get a livelihood by utilizing its human energy only; that is, by depending upon the superior quality, skill, effectiveness, and organization of its people, engaged in the conversion of raw materials, obtained elsewhere, into finished products, to secure for the group a trade residual adequate for its maintenance. But enterprise so conceived is at best handicapped by the burden of a double cost for transportation and must rely for its very possibility upon the existence of world trade and world commerce of notable efficiency. That efficiency in world transportation has itself needed to be developed, hence it follows that those national groups which promoted the development of transportation notably would be the ones also to profit most by its use in the way suggested. In fact the whole structure of Western civilization is so much based upon the growth of transportation facilities that it will be of significance to review the successive steps by which this development in efficiency of transportation was accomplished, and how it brought about the present expansion of world trade and Western culture.

By contrast with the isolation of Egypt's situation the

Mesopotamian lands were located at the very centre and focus of overland communication, where routes from north and south, east and west, crossed. Thus, while the earliest Egyptians hardly knew the meaning of trade, the Babylonians and their predecessors for long had been active in the exchange of goods. Bulky products such as lumber, stone, oil, and furs the Mesopotamians received from comparatively distant points, in part at least conveyed over water routes. But, measured by values, the greater part of their business with foreign parts (inward, silks from China, perfumes from Arabia, and the like; outward, mostly manufactures of metal; all, in those days, costly goods of small weight) was a matter of transportation by caravan. Nevertheless the Babylonians depended for the most part upon their own acres for subsistence; the records of their commercial transactions that have survived are, in the greater number of cases, contracts concerning land, corn, and irrigation.

It remained for the Phœnicians, apparently, to be the first people to attempt to expand, nationally, independent of a supply of food produced at home. While the Mesopotamians were situated at the focus of a number of overland routes, the Phœnicians could depend on only one, but that one was a great highway. Yet only after Egyptian and Mesopotamian cultures had been long established, and had come into contact with each other, at first in war and later in trade, did this highway assume importance; for it was the easiest route between these more ancient centres of civilization. Once, however, trade did begin to move along this route the Phœnicians made it their business to be the intermediaries and, so functioning,

profited greatly, as middlemen usually do. But it is also significant that the Phœnicians did possess a strip of coast-land, narrow and small to be sure, yet sufficiently fertile to provide for their need of food when they were still few in numbers and lacking in wealth. Moreover the Phœnicians had fisheries, and because of the existence of these, probably, they got their first introduction to trade, and because of fisheries, also, their first ventures in overseas navigation were made. For the fisheries supplied the material of their famous purple dyes; and textiles coloured with these dyes were in great demand among the elect both of Egypt and of Babylonia. In glass-blowing and metal manufacture the Phœnicians also excelled, and the glass sands they certainly obtained from their own beaches. It is apparent, accordingly, that Phœnician prosperity was founded, at least initially, upon homeland resources, and in this respect their history is like that of other successful trading and industrial nations. Once they had become established as a commercial people, it was well enough for the Phœnicians to depend upon Egypt and Palestine for corn. It is interesting to note, also, that the Phœnician business of importing corn was delegated to the government, further that the foreign grain was probably distributed at cost, or at a price not in excess of the domestic product; indicating that adequate nourishment of the whole population was regarded as a first essential of community organization.

The Phœnicians had ample forest resources, on the hills back of their narrow lowland domain, to supply them with timber for building ships. Thus their very venturing upon the sea was made possible by their easy access to

this form of homeland wealth. With the incentive of needing to secure a larger quantity of the shellfish that yielded the purple dye, and with material for ships so readily accessible to them, the Phœnicians became the earliest nation of seamen and were thus the first nation to realize upon the opportunity afforded by the combination of transportation at low cost and trade at "opposite conjunctures." [1] They brought goods from regions where they were plentiful and exchanged them for other goods, plentiful at another place. Theirs was a frontier trade at both ends. Frontier trade—that is, the exchange of goods (like glass beads) produced cheaply and in quantity by a group that has made some advance in the arts, for the intrinsically valuable commodities available to a barbarous group—has always been a very profitable business. Frontier trade is the basis of the foreign trade of today in raw materials. The Phœnicians were not only able to manage that, but also to secure a large quantity of the elaborated materials of one culture group in exchange for a much smaller quantity and value of the similarly elaborated products of another culture group. If one will conceive the French and the British to have no direct trade relations, and the Dutch to have commercial contacts with both, the profits that the Dutch could and would take might be on a par with those the Phœnicians enjoyed. And because the Phœnicians could carry bulk goods easily in their ships they did not need to confine themselves largely to treasures and curiosities, as was the case with the more difficult caravan trade. The Phœnicians got corn and oil,

[1] H. E. Gregory, A. G. Keller, and A. L. Bishop, "Physical and Commercial Geography," p. 215, Boston, 1910.

wool, hides, and block tin, and, after keeping what they wanted of each kind, used the surplus for further barter.

Phœnician political organization was of the nature of city-states and their colonies were trading stations. Carthage, originally a trading settlement, did in time become the metropolis and centre of the Phœnician interests. But this transference of the chief seat of national activity was not due to any defect of the home site of Phœnicia, but because of difficulties with their Assyrian conquerors. Allegiance the Phœnicians were willing enough to render the Great King, and even to pay him moderate tribute; but they balked at yielding up their maritime supremacy; therefore they moved. Moreover, the Greeks, profiting by the example the Phœnicians had set, were so successful in imitating the methods of their forerunners that they were able shortly to displace the Phœnicians completely in the eastern Mediterranean and Black Sea trade. As, therefore, the Phœnician trade interests came to be concentrated more and more in the west, and because, with Carthage as a centre, defence against further encroachment could be most readily organized, Carthage, quite naturally, increased in size and importance and eventually dominated the empire.

By their development of overseas transport the Phœnicians, and their Carthaginian heirs, as intermediaries, in some measure carried the culture of the older civilizations into the less easily occupied lands of western Europe. But it remained for their first and most apt pupils in the new art of navigation, the Greeks, to *fix* this culture on the north shore of the Mediterranean and to amplify it for the further needs of the world.

Between them, the Phœnicians and the Greeks exploited practically every device known to modern nations for increasing the prosperity and power of the home group. In the application of these means they were, however, limited again by the crudeness, smallness, and slowness of their ships, and by the still unsolved difficulty of overland transportation. Either the one or the other nation, or both, developed home agriculture and fisheries, established home industry, engaged in overland and then in overseas trade, founded trading colonies, then agricultural settlements, made treaties defining spheres of influence,[1] and engaged in military conquest.

But in their indifference to aught but the acquisition of material wealth by trade, the Phœnicians made a mistake which eventually cost them their national existence and later occasioned their complete disappearance as a people. Because of their business successes they were led to cut themselves off more and more completely from dependence upon their native soil; and eventually they attached no importance to the homeland. Hence the wholesale emigration from Tyre to Carthage when Phœnician trade was threatened by conqueror or alien competition. On the other hand, their back-door neighbours, the Hebrews, a pastoral and agricultural group, persist until today as a type, and even now keep alive a deep affection for their homeland, as is indicated by the strength of the Zionist organization among the Jews.[2]

The Greek competitors of the Phœnicians built upon a

[1] A. G. Keller, "Colonization," p. 37, Boston, 1908.

[2] See "Great Britain, Palestine, and the Jews," pamphlet, presumably British propaganda, publication issued by G. H. Doran Co., New York, 1918.

more secure foundation. They do not seem to have been a whit behind their masters in the matter of trade practices, but their city-states were primarily agricultural organizations. Like the Phœnicians they were early troubled by pressure of population, and migration to neighbouring islands resulted. But these emigrant colonies took the form of agricultural settlements, and were not merely trading outposts, as was the case with the Phœnician colonies. Perhaps this was because the Greeks did not have so ready an access to food supplies as did the Phœnicians; in any event their different course brought about the development of a Greek culture that absorbed what the Phœnicians and others had to teach and proceeded to improve upon it. Yet the Phœnician and the Greek environment had in common the disabling fact of discontinuity and of the constant invitation of the sea, which, once mastered, also became their master. In the case of the Greeks, further, the topography of their mainland was such as especially to discourage overland communication, in fact so much so as distinctly to isolate the several states, and to keep them disunited except as a Philip and an Alexander, from the larger background of Macedonia, compelled for a time their acceptance of a single rule.

It remained, accordingly, for Rome, extending her power, first radially over a compact, unit land mass, the Italian peninsula, and then stretching out by sea and land, to make the first step in overcoming the age-old difficulty of devising means for easing the toil involved, and shortening the time required, in conveying goods over the dry surface of the earth. This the Romans did by invent-

ing roads. On the stone highways they built, first diagonally across Italy, and later in all directions from Rome as a focus, the Romans were able to haul goods more easily and quickly, and to march armies faster than had ever been done before. By this means, too, they were enabled to keep a firm grip upon the areas they added to the empire by their successive conquests, and to derive from these regions a livelihood by the simple expedients of enforcing law and order, compelling the subject peoples to work, and by settling the Roman poor upon part of the lands they had taken. The Romans did not neglect sea transportation, for, while they delegated to others the work of bringing in the corn for the capital, they used their own seamanship in navies designed to defend the carriers and to maintain the integrity of their land empire. Following their roads, Roman culture spread throughout all northwest Europe, and if, in the confusion of the Middle Ages, the roads themselves crumbled and decayed, the germ of the order which these had served to establish remained to fertilize civilization anew at a later date.

Finally, the discovery of coal and the application of steam power so greatly enlarged and facilitated transportation possibilities, over both the sea and the land, that modern world commerce was the result. In effect, this expansion of transportation facilities has meant that the cost in human effort for the carriage of goods is so much reduced, that the assembling of raw materials for elaboration into consumer's goods and, again, the distribution of the finished products, constitute but a minor item of the total of cost charges to the ultimate user.

The foregoing review serves, therefore, both to bring out

the importance of transportation in the unfolding of Western civilization and to re-emphasize the intimate relation that exists between a national culture and the resources of the land in which this must be rooted if it is to endure. In the last analysis, "the substance of the state . . . is always a *territorial* society in which there is a distinction between government and subjects." [1] The primary essential for the existence of a national community is the ability to subsist, initially at least, upon the produce of its own territory. As organization promotes the growth of population, the basis of subsistence must expand proportionately. This seems to have been possible for ancient Egypt, where subsistence was not only the primary need but also the sole need, without encroaching upon anything but contiguous, unoccupied territory. But for other nations the problem has not been so easily solved. Either the nation has needed to extend the space required for sustenance, at the expense of neighbouring communities, by annexing their territory, and displacing or subjugating the natives; by occupying new lands; by dependence upon the profits of foreign trade, or, finally, by developing industry at home, coupled with the exchange of elaborated products abroad for food. In the Temperate Zones the problem is further complicated by the needs for clothing, shelter, and fuel; and by the large demands which these needs make, not only upon the national resources, but also upon the total energy of the group.

With the development of civilization, and the multiplication of discoveries in ways and means for the harness-

[1] H. J. Laski, "Authority in the Modern State," p. 26, New Haven, 1919.

ing of mechanical energy to human tasks, the problem of national growth in the Temperate Zones has been so far met that in the last half of the nineteenth century the population of these areas has increased from 170,000,000 to 500,000,000 [1] and probably on the whole with some improvement in the standard of living for all classes. Certainly many more creature-comforts and conveniences are enjoyed by greater numbers now than were available even to potentates in earlier days. But, in addition to the help afforded by modern transportation and machine industry, a large part of the relief from congestion of population has been due, in the several centuries just passed, to the availability of virgin lands, all in the Temperate Zones, in the New World and elsewhere, for settlement and exploitation.

The major part of these new lands of the Temperate Zones have now been occupied and developed to the industrial status. The leading national groups have found that, with the change from domestic to machine production, and with the expansion in world commerce which railroads and steamships have made possible, it is no longer feasible for even those nations best equipped in natural resources to be self-sufficing; except at the cost of lagging distinctly behind in the race of modern progress. The interdependence of nations which these changes enforced has led to the development of economic rivalry upon an international scale, each group seeking a differential advantage over one or all of its competitors. The weaker, or less advanced groups, have been exploited by the stronger, to the

[1] Benj. Kidd, "Principles of Western Civilization," pp. 15, 346, New York, 1902, quoting Sir Robert Giffen.

accompaniment of a series of clashes between the rival exploiters, culminating in the attempt of Germany to revive the old method of conquest and subjugation by force, and to apply it to her neighbours. Finally, with increased understanding of the situation, brought about, also, by the modern facility of communication of intelligence, the great number comprising the bulk of national populations are pressing for a change in the economic order which shall give them a larger share in the available total of subsistence. How may these problems be solved, how should the Temperate Zones be inherited by the coming generations for the highest good of mankind?

It should be recognized, first, that nationality will persist for an indefinite period into the future. As has been argued in these pages, nations are fundamentally, and categorically, territorial societies, and regional association is the natural basis of the group consciousness that marks off one national community from another. It may be that an effective world confederacy can be achieved in time, but the same end will probably be attained much more easily by preserving national regional groups intact, if the preservation of nationality is coupled with progressive development of a "live and let live" policy in international relations. A world state would at best be a difficult thing to administer efficiently. Despite the modern speed of communication and increase of knowledge, the mere size and variety of the world is still beyond the comprehension of any one human being who might be called upon to accept leadership of all the peoples. A prominent railroad executive has recently argued that a unified railroad system for all the United States would

fail, because no single man would be capable of its competent direction, and any scheme of control by groups of individuals would, in its very nature, be a negation of the idea. Indeed, it would probably be better for world progress if the self-governing dominions of the British Empire were each to have complete political independence. They could then adjust themselves to their environment without reservations of any kind.

On the other hand, national culture of a distinctive sort needs to be fostered, and bitter competition between national groups should be supplanted by friendly emulation. It is, perhaps, too much to expect that the masses of the peoples will immediately recognize this truth for their betterment, or even the reasonableness of an international programme thus conceived, but they can be *led* as readily to accept it as a basis for progress as they have learned to accept more specious doctrines from time immemorial.[1]

On the economic side it is of importance that attention be directed, and kept fixed upon, the necessity for specialization in production, both with reference to the geographic adaptation of a country, or part of a country, for the development of a particular industry, and with reference to utilizing and increasing the skill of particular groups along special lines. The localization of industry has in the past been determined by a variety of factors,[2] some purely fortuitous and, hence, industries are

[1] W. G. Summer, "Folkways," pp. 47-53, particularly sections 54 and 58, Boston, 1907.

[2] M. Keir, "Localization of Industry," *The Scientific Monthly*, pp. 32-48, Jan., 1919.

in places ill-adapted to the succeeding growth. As corporate enterprise has played a larger and larger part in modern industrial projects there has been, however, a notable tendency to establish manufactories in accordance with geographic indications. Thus the location of the United States Steel Corporation's plant, at Gary, Indiana, is an example of this kind of predetermination of a well-adapted site for carrying on the activities of a new unit in this basic industry.

Whether brought about by expert advice to the corporation's officials, or by individual initiative, the location of new enterprises with due regard to sources of raw materials, power supply, transportation facilities, and markets should be given public encouragement. Facts of this kind should be noted and given prominence in the public prints, whenever opportunity offers. Much has, of course, already been accomplished in the way of appropriate regional location and specialization. Environmental controls are occasionally so dominating that ill-adjusted competition, set up because of man's wilfulness or stupidity in the face of nature, is completely eliminated.

Again, acquired skill, by habituation from infancy to certain pursuits, gives certain communities an advantage that rivals in a new location find hard to overcome. The growing of bulbs and the diamond cutting of the Dutch, the dairy farming of Denmark, the watch-making and milk-chocolate manufacture of the Swiss, the making of shot-gun barrels in Belgium, of Limoges china, of Jena glass, of Parisian styles, the production of various European cheeses, of Irish linens, of English woollens, of Swedish matches, of Japanese lacquer, the growing of

coffee in Brazil, are all typical examples of specialized industries owing their success either to favourable geographical conditions, or to particular skill, and, commonly, to both. This does not mean that because the French make a superior grade of china no one should attempt the manufacture of fine china in the United States. It does mean, however, that, except as assistance may be given during the period required for the acquirement of skill, there should be no other public support of an infant industry, because, if the new project has an adequate natural background, it will then survive, if not it should perish; and both the capital and the human energy involved might better be devoted to more suitable activities. Thus tea can be, and is, grown in South Carolina to a limited extent; but it is not to be assumed from that fact that it would be better, nationally or internationally, for Americans to attempt to grow tea in sufficient quantities to supplant the Oriental importation. The opportunities that remain open are so many that there is in any event little point in attempting to imitate the specializations of other peoples; it would be far better for each group to develop the products of its own peculiar resources and skill.

There should, also, be a greater public interest in the rational utilization of the national domain in general. All the wide programme of conservation that has been outlined in recent years is deserving of application both in America and elsewhere.[1] Exploitation without regard for the future should cease. Use without abuse may, of

[1] See in this connection "The Foundations of National Prosperity," by Ely, Hess, Leith, and Carver, New York, 1917.

course, go on, for it is scarcely reasonable to refuse to use at present those resources which are in demand and are being utilized to the advantage of the whole group, because of a vague expectation that they may have a higher utility at some time in the future. Particularly, there should be public encouragement of the development of water power under such regulation as will insure its full realization and equitable distribution. Nationalization of mines, however, for example, would be fraught with so many difficulties that it may be doubted whether it could be made to work, even if nations generally were to adopt socialistic schemes of control over natural resources that are already developed.

On the other hand, there is no good reason why there should not be larger public undertakings of the nature of the irrigation development of Western lands by the Federal Government of the United States. It might, for instance, be quite advisable, as a public project, to begin the use of the vast deposits of low-grade coal in the west of the United States for the making and piping of producer gas to Eastern centres of population. The result of enterprise of this nature would be to conserve the better coals of the East, and also to check, in a much more effective way than would any scheme of nationalization, the monopoly-price tendencies of private coal operators.

To sum up, it should be the keen concern of all peoples resident in temperate lands to see to it that the natural resources of the national domain are always being utilized as efficiently as possible; on the other hand, they should not be jealous of the successful adaptations of other nations. If each group is permitted to make the most

of its territorial legacy, free from the attempts of foreigners to render their endeavours impotent, a long step forward will have been taken toward complete international amity and toward the provision of a greater volume and a higher quality of consumer's goods for the world as a whole. In view of the present-day vogue of slogans it may serve to recommend this one for adoption by all nations: *Goods are produced best where they are suited most.*

A notable phenomenon, of more recent years, in modern industrial organization is the increasing congestion of population in city centres. This is a tendency which must be combated in the future. But the remedy can scarcely be found in a "back to the land" movement, as this is generally conceived; for machine production is proportionately as effective in extensive agriculture as in the elaborating industries, as, for example, this is illustrated by the recent success of the farm-tractor. Consequently fewer men will in the future be needed on the farms if no more intensive culture than has obtained in the past is to be practised.

But it is desirable that a more complete and comprehensive use of agricultural lands be developed, even if this does involve diminishing returns per unit of human effort, because the food supply must always be the critical factor in determining a nation's standard of living. While it will not pay to divert the city workers from their skilled pursuits to farming, an equivalent solution of the problem would be to ruralize, or, in any event, distinctly to suburbanize, the processing industries. Because of city growth and congestion, man's home space, work space,

and sustenance space have each become distinct, and more and more widely separated. In the cities themselves this has given rise to the problem of rapid transit. On the other hand the cost of commodity transportation has been reduced so much that, except on very bulky goods, it constitutes, in total, only a very small fraction of the selling price, and, hence, may be a negligible factor in marketing the product.

Accordingly it will in many cases be quite feasible to move factories away from city centres into rural or semi-rural situations, yet near enough to the city to retain the advantage of the metropolitan market, if this be essential. The greater the labour cost of a commodity, the more readily and profitably could such transplanting be done. The result would be to put the home and the work space once more in close juxtaposition, thus avoiding in part the necessity of the great haul of human freight twice each day, now so characteristic a feature of city life. Further, each worker, under those conditions, could be provided with a home garden, and thus be brought in contact, again, with a small section, at least, of his sustenance space. To this garden the factory worker could devote his spare time and there could be secured, in part, by this expedient, the intensive cultivation that is needed to augment the food supply; while the worker himself would be furnished with an avocation that would make him more content with the routine of his factory employment.

A countryward movement of industry is already under way, though probably without conscious intent to improve the economic situation, upon the part of the capitalistic proprietors. The practical object of the owners has often

been, rather, to secure cheaper ground rent for the plant itself and lower living costs for their employees, than the welfare of society. The especial difficulty that at present prevents a wider adoption of the idea is the social disadvantage of the workers located in isolated communities out of touch with the amusements and other attractions of the urban centre, and out of contact with persons otherwise engaged than themselves. This objection does not apply so strongly to suburban locations that have frequent and convenient steam and electric train service to the city; and, as the cheap automobile is making possible a distinctly larger content for the social life of the farm, so also it may prove to be the lever which will prise industry from its city confines.

In many modern, specialized manufactures it is also of great importance that the processes be not exposed to the soot and dust of crowded industrial areas, and this fact, too, may be of significance in bringing about a more extensive movement countryward. The printing trades may be cited as an illustration of this motive. Finally, if the profit-sharing principle, and that of co-operation in industrial enterprise gain wide acceptance, they may serve the purpose of establishing a sufficient unity of self-interest in bringing about so great a degree of solidarity and coherence in the isolated group as to make it willing to forego social advantage to some extent; in view of the larger return on productive effort which a suburban location should insure. Under these conditions, the owners, the management, and the operatives of a given plant may all come to think of themselves, together with their equipment, as a single coherent unit in the competitive organ-

ization of production, and will, as individuals, act to promote the common interests of the group.

Considerations of national and international importance are also involved in the possibility of re-combining work, home, and sustenance space by the movement of industries countryward. As summarized by Taussig,[1] the great manufacturing states of today, England most conspicuously, depend upon the predatory cultivation (continuous cropping of the soil with one kind of plant) of other areas in the Temperate Zones than their own, the United States, Canada, Russia, Roumania, Australia, South Africa, Argentina, Uruguay, for their main food supply. As the thinly populated regions become, in time, more densely inhabited, with the accompanying development of manufactures in their areas, industrial Europe will no longer be able to obtain food by importation from these places. "The manufacturing population must then go back, in part, to the land." In the years immediately preceding the war the exports of food from the United States were falling off very rapidly.[2] Thus, in round numbers, the price-value of meat exported from the United States declined from 200 million dollars, in 1906, to 150 million dollars in 1913; wheat declined, between 1880 and 1913, from 190 millions to 90 millions, and corn, between 1900 and 1913, from 85 millions to 30 millions of dollars. In actual quantity the decrease was even greater because of the rise in prices during the periods enumerated.

[1] F. W. Taussig, "Principles of Economics," second edition, Vol. I, pp. 534-536, New York, 1915.

[2] W. I. King, "The Wealth and Income of the People of the United States," p. 252, New York, 1915.

If past experience is any criterion it may not be doubted that, as long as virgin lands in the Temperate Zones remain to be exploited, the rapid increase in numbers of the white peoples will continue. Willcox [1] says: "For many years the population of Europe has been increasing with unexampled rapidity. That since the twentieth century opened it has added 50,000,000 to the numbers, or about 4,000,000 each year, can be established by irrefutable evidence." The tremendous expansion of population in the United States during the same period is a matter of general knowledge. It may be possible to postpone indefinitely the time when population over the whole earth presses on subsistence in accordance with the doctrine of Malthus. A variety of developments, discoveries and devices can serve to this deferment. Extension of the cultivable areas of the temperate lands through hybridizing, and through the discovery of drouth-resisting and cold-resisting and short-season varieties of wheat, and other grains; in general the use of a wide variety of scientific, agricultural practices and expedients to increase yields, without involving more human labour, will be one way to insure the postponement. Again, adoption of tree-crop agriculture as urged by Smith,[2] the exploitation of the remainder of the temperate lands by machine cultivation, the conquest of the tropics in the farther future, and, ultimately perhaps, synthetic foods as suggested by Nicolai [3] all have great potentialities in this connection. But in the

[1] W. F. Willcox, "The Expansion of Europe in Population," *American Economic Review*, Vol. V, p. 742, No. 4, Dec., 1915.

[2] J. Russell Smith, "Industrial and Commercial Geography," pp. 655-664, New York, 1913.

[3] G. F. Nicolai, "The Biology of War," pp. 49-53, New York, 1918.

ordering of its economy for the present, and for the immediate future, society can scarcely afford to rely blindly on the probability that provision of augmented subsistence will, in natural course, take care of increasing billions of population. Even if all the possibilities suggested do become realities, every known expedient to promote more intensive cultivation and to increase the supply of food ought to be resorted to immediately.

How narrow the margin is between possible food production and actual demand was made apparent during the Great War, and by the high price of foodstuffs which afterwards prevailed. The withdrawal of man power from agricultural pursuits, the wasting of productive acres, the loss of tonnage needed for the transport of foods due to submarine sinkings; all contributed to bring about this shortage. But as these losses were offset in part by rationing and by forced production during the war, the pinch was due as much to the normal narrow margin between supply and consumption as to the peculiar shortages of the time. If it were planned to apportion, through a whole year, to all the millions of people now on the earth as much food as each individual could consume enjoyably, it would be found that the supply would fall far short of the demand.

Roorbach [1] has supplied a concise statistical summary

[1] G. B. Roorbach, "The World's Food Supply," reprinted from *Annals of the American Academy of Political and Social Science*, Philadelphia, Nov., 1917, Publication No. 1148. See also: O. D. von Engeln, "The World's Food Resources," *Geographical Review*, Vol. IX, pp. 170-190, 1920, and V. C. Finch and O. E. Baker, "Geography of the World's Agriculture," pp. 8-9, United States Department of Agriculture, Washington, D. C., 1917.

of food production, food consumption, and export of foods in 1917, and points out, as a result of his studies, that the "bulk of the world's food supply is produced in the countries in which it is consumed. Sparsely populated Argentina, which we think of as primarily a food-exporting nation, actually consumes nearly twice as much as she exports." The countries that fail to produce enough at home for subsistence depend upon the slender export surplus of a number of other nations to make up the balance. Countries which have a surplus of one kind of food commonly import enough of some other variety to balance the outgo.

It is immediately apparent from this that, altogether apart from considerations involved in the distribution of national income, there can not be any material advance in the well-being of the world's population, as a whole, except as there is a disproportionate increase in food production over increase in population. The world's foods are all consumed as they are produced, there is no hoarding, and there are no reserve stocks for seven lean years as in Joseph's time. The rich and the well-to-do, however extravagant their habits, can not actually consume food in greater quantity than do other individuals. They do draw rather heavily upon the general supply, through their possession of a larger income, by maintaining a wide variety of servitors to cater to their personal wants, thus keeping that many of the total population out of productive effort, as, for example, the more intensive cultivation of the land. But even if all the parasites on society were compelled to work on farms, the sum of their labour, assuming it to be effectively applied, would not contribute

materially toward a more adequate feeding of the present population of the world. Population tends always to press upon subsistence, and the numbers of mankind are now too great to permit the hunger of every individual to be satisfied regularly and completely.

A number of possible remedies for this condition present themselves. One is the elimination of all actual waste, resulting from the extravagance and the unproductiveness of the personal servitors and of the idle rich. This is the remedy that is most persistently urged by social reformers and, during the war, the work-or-fight rule, coupled with food-saving, gave some index as to what might be accomplished in this direction. If similar restrictions upon personal indulgence could be enforced in peace times, and the resulting economies diverted to the general welfare, as in war time they were diverted to military purposes, a considerable alleviation of the food pressure would result. The surplus of workers could then be used for more intensive cultivation of the land.

A second remedy will be the opening up of all possible new lands to cultivation. Organized effort to this end has been actually in progress in the South American states. Chile, Argentina, and Brazil have at various times encouraged the immigration into their lands of large groups of European peoples. All homesteading and colonizing offers, as, for instance, that of Canada during recent years are of the same nature.

As a corollary to this, however, there should be a stoppage of immigration into all countries so far industrially developed that they produce no surplus of food over home consumption. This restriction would apply to the United

States. It might reasonably be expected that the standard of comfort of the least well provided for in nations so circumstanced would then rise, and, with proper educational measures, that a general improvement in the well-being of the whole population could be brought about. If closing of the doors to all immigrants seems a trifle drastic it would perhaps suffice to accomplish the same end if immigration were permitted only when it could be shown that there was a distinct need for a particular number and kind of additional population, and that there was a sufficient margin of subsistence to make possible their maintenance at the same satisfactory level already existing in the group.

But these are in the main only expedients. The real solution lies in checking the increase of population throughout the world, or as referred to the Temperate Zones, in the white race. The limitation of immigration, suggested in the preceding paragraph, would be an effective factor in halting the increase, and would perhaps even serve to promote some decrease in the existing numbers. For if the emigration outlet were almost completely closed to regions having a redundant population, the peoples of those regions would experience the subsistence pinch more severely than now. The opportunity, opened occasionally to a few of their number, to emigrate into the lands having less dense population and greater resources per human unit would then appear golden. Thus taught, the lesson of the evils of over-population would be quickly learned.

In fact, this lesson of checking the increase by prudential restraint in marriage has been learned by nations;

but not before the numbers had become so great as to make the standard of living generally too low. France, before the war, had an almost stationary population, and statistics from other European nations indicated a tendency toward establishing an equilibrium between the birth-rate and the death-rate. But it is notorious that practically all of the vast number of American soldiers who were compelled to witness the penurious frugality by which the French peasants maintain themselves, a frugality which makes it possible for France to produce 93 per cent (Roorbach) of the national food at home, were disgusted with the manner of life this entailed upon the agricultural population of that country.

The question that the conditions of equivalence of population and subsistence in France immediately raises is: Would a further reduction in the numbers result in a higher standard of living for the French people? The answer to this question may be in the affirmative. There would be fewer cultivators of the soil, and the toilsome, inefficient, small-scale hand agriculture of the French, that so irritated the Americans, would be replaced by machine cultivation; without great impairment, perhaps, indeed, with an increase, of the total crop secured. Effective labour would replace cheap labour. The agricultural yield per unit of human effort would increase. Higher wages would result and, with these, increased demand for products other than food, since the consuming power of the nation as a whole would thus be enhanced.

In this some critics may see merely a round of rising prices, with no actual gain in quantity of commodities.

But their contention would fail to take into account that, with a diminished supply of man power, an expanding market for goods at home, and a greater production of food, the rate [1] of profit on invested capital must decrease, though the total sum realized from its employment may remain as great as when labour is cheap and the workers are undernourished. In other words, capital must then expect to operate on a narrower margin, and to depend on quantity production. This demands more efficient production, more complete and more frequent turnover. Capitalists will need to recognize that this is the solution of their problem, and, once they do, contention between capital and labour will subside. Certain astute employing manufacturers in America have already grasped this principle and, by paying higher wages, they are securing the most efficient labour for production in quantity, hence are avoiding labour troubles in their enterprises, and are occupying a place in the van of capitalistic progress while their fellows at the tail of the procession are succeeding only in creating disorder in the ranks.

It should be recognized that the world's potential demand for commodities is practically unlimited. Nine-tenths of the population of the more advanced countries could very properly enjoy better housing, better clothes, and the opportunity to travel by train or automobile. They are deterred from securing these things, in part, by faulty distribution of income, but vastly more by the inadequacy of total production. The difficulty is not altogether that the sum of income now available is no more

[1] J. M. Robertson, "The Economics of Progress," p. 109, London, 1918. See also his chapters on population.

equitably distributed, but that the totality of production is not vastly increased, with proportionate increase in the consuming power, due to the share of the workers, generally, in the augmented production. Hence the need for developing the resources of each region in accordance with its comparative endowment.

Produce all things in the regions best adapted to them irrespective of country. Let immigrants go into areas where an increase of population will mean production of an increasing surplus of food for export. In each region where production of food is not adequate for the comfortable subsistence of all the existing population let there be a declining birth-rate, more and better educated, competent individuals, capable of making the best possible use of the environmental provision peculiar to each area. Then a surplus of certain commodities should be available to be used in exchange for the surplus of other kinds of goods similarly made available in other regions.

The share that each class of producers shall receive for its services will need to be differently apportioned than now, if the resources of the world are to be thus more rationally utilized. The necessity of obtaining a mere livelihood, coupled with ignorance and lack of opportunity, on the part of the majority of workers (in the present state of overpopulation of the earth in relation to the food supply) has resulted in the least skillful and most toilsome labour receiving the lowest pay. Once livelihood is provided for, and education made possible, the readjustment required will ensue as a result of competition between the producers themselves. To a certain degree this has already occurred. A manual labourer was once

lowest in the scale of wage-earners. Today clerical workers evidently occupy that position in the most advanced countries. Higher money rewards are now obtained by all ranks of manual toilers but, because of the normal distaste for physical exertion, clerks are in plentiful supply, and they get, accordingly, a lower return for their services. Children, though of parents who, under the present order of production and distribution, are in sufficiently comfortable circumstances to assure that the wolf will be kept from the door, are in recent years constantly making a choice of their own careers between lucrative, if distasteful, occupations and the more "genteel" clerical places that do not pay so well.

But if capital is not in the future to have so large a rate of return, as in the past, from employment in the enterprises of the advanced industrial nations, will not capital immediately be exported for application in more backward countries? There can be no question but that a first concern of capitalists is in the percentage of profit different employments of their funds may get them. Totality of return may, under the circumstances set forth above, continue equal to what it has been, but only on the basis of ability in investment and management; in other words, in so far as the capitalists themselves are able to make their funds contribute to efficient production. In this the measure of capital enterprise will be taken. Accordingly the possibility of escape from this obligation, and test of fitness, through export of wealth, will appeal to incompetent and slothful capitalists.

Organized labour has recognized a danger to its aims in the exportation of capital. In an account by W. E.

Walling in the *New York Times*[1] of the International Federation of Trades Unions' congress held at Amsterdam, it is stated that the French Socialists, replying to criticisms directed at the labour clauses in the League of Nations Covenant, pointed out that "the very purpose of international labour legislation would be not to advance the already advanced nations, so much as to level up the small and backward nations—whose competition was likely to drag the others down." There is no question but that a League of Nations could be made a very effective instrumentality in mitigating the exploitation of backward peoples. If capital invested in regions occupied by groups not developed to machine industry were compelled to pay, either to the workers directly or into the public treasury of their governments, in taxes, so large a proportion of the profit as would establish an essential equivalence between labour costs in the advanced and the backward nations, one of the great temptations to export capital would be removed. It is no doubt substantially this objective that was sought by the Carranza government in Mexico with its nationalization scheme.[2] While moneys so paid in to the governments of the backward peoples would, in many cases, be dissipated by grafting politicians, inequalities in the distribution of wealth resulting from the unrestricted exploitation of the natural

[1] Oct. 26, 1919, sec. 10, p. 6, col. 2.

[2] *The New York Times*, Oct. 26, 1919, sec. 3, p. 3, quoting the Mexican newspaper *El Universal*, lists British companies with a capitalization of $120,000,000 engaged in exploitation of Mexican oil, and about $380,000,000 more in other Mexican investments of similar nature. See also article on "Carranza and World Oil Monopoly," same issue, same section, p. 6, of *New York Times*.

resources of these regions would, even so, be in some degree smoothed out, and an effective curb put on the operations of speculative foreign corporations. At best revenues thus derived would be used for permanent public improvements in the region of production and thus would bring about a rational development of additional areas of the earth's surface.

The League of Nations may also be the means available to bring about a wider adoption of the open-door policy and its stricter enforcement. As Hobson [1] points out, the fear of nations of "close colonization" policies on the part of their rivals is largely responsible for international friction. Once a backward region is marked off to the degree only of a "sphere of influence" by one set of nationalist traders and exploiters it is unlikely that competitor-nation groups with capital to invest will have much opportunity of participating in the "opening up" of that area.

In the words of Robertson,[2] "the poverty of any one state is a handicap to all." For "if home trade meant the possible maximum of production, it should be secured within the township or at least within the county." If the "county can not yield all the possible supply or all the possible demand as regards any one form of production" why assume that the nation can? Unless the most rigid limits are put on population as to numbers, and on production as to variety; unless the nation consumes all it produces or wastes surplus, a self-sufficing state is im-

[1] J. A. Hobson, "Towards International Government," p. 132, London, 1915.

[2] *Op. cit. ante*, pp. 107, 206-207.

possible. If the lands available to every group were unlimited, all surplus labour could be devoted to increasing the food supply, other production being limited to requirements. But the lands of every nation, organized as a state, are sharply marked out and the total lands available to the human race are the lands of the world. Hence, logically, the highest good will result from the development and population of all lands up to the limit in numbers where a comfortable subsistence will be available for every inhabitant of the globe.

Several barriers are interposed to this solution of the problem of using all the lands of the earth to the best advantage of mankind. The first is the fear of each industrial nation that some other nation will secure a differential advantage in any undeveloped region that is in question. The second is the desire of each group to secure for itself that differential advantage, particularly the investment opportunity for the capital of the home nation exclusively. The third is the unwillingness of labour to have the products of all countries meet in free competition; an unwillingness based chiefly on the conviction that the standard of living in backward countries is much lower than in the industrial nations.

The third difficulty is, perhaps, the most fundamental, the first two being merely particular expressions of the same point of view that gives rise to the last. It is of interest, accordingly, to note that the wage-earning class, or better, perhaps, those who presume to think and act in the interests of this class, usually fail altogether to take into consideration one factor of importance that is involved when free competition with groups having a lower

standard of living prevails; namely, that the cheap labour of the region having the lower standard is relatively inefficient labour. Hence the superior group ought to feel itself able to meet the competition of the less skilled workers of other regions on terms of near parity, at least, because of this difference in efficiency. Capitalistic enterprise in the more backward countries does, however, endeavour to overcome this handicap by enforcing longer hours of work. Hence the need for securing equivalence of labour conditions everywhere.

The hostile relations that still exist between nation and nation in regard to trade and industry were formerly operative in quarters where amity has so long replaced enmity that the earlier condition is now all but forgotten. In a well reasoned and enlightening article,[1] S. J. Graham, Assistant United States Attorney-General, points out that after the American Revolution, the states, under the Articles of Confederation, "began to pass discriminatory tariffs against each other." "The people of Pennsylvania and Connecticut were actually at war, plundering and killing each other in the Wyoming Valley." "There was a jealous spirit among them, striving each for its own advantage and watchful of a chance to do injury to some other state." "Confusion and discord and international anarchy were everywhere present due to each state having adopted again a policy of individual nationalism." It was not an easy matter to secure the adoption of the Constitution of the United States and so to form a true League of Nations composed of these territorial groups, which,

[1] "League of Nations to Avert International Anarchy," *New York Times*, sec. 4, p. 1, Jan. 12, 1919.

though they had the human attribute of being conscious of kind, were yet keenly aware of their diversified regional situations. Hence the greater difficulty of bringing about a recognition of their common dependence between groups living in even more widely different environments, in non-contiguous territories, and the failing to understand each other.

Some amelioration of international friction may be hoped for from association in a League of Nations. But, aside from that, David Lubin indicated [1] shortly before his death the immediate, practical, and profitable way in which the nations might be taught to understand that the advancement of all would be a net benefit for each. Lubin proposed that the already advanced industrial nations, or rather the financial and trading groups in those nations, should foster the upbuilding of modern machine manufacture in all the backward countries where machine industry would be an economic advantage; that is, where it would result in increased production by replacing hand-worker industry. He further suggested local ownership and direction of these new industries, in order that local prejudice to the change should be minimized. The initiative, only, would need to be supplied from the outside. While he does not say so explicitly, Lubin also intimates that each attempt of a new establishment should be made only after due consideration of the factors, (*a*) of the natural adaptation of the region to supply the home and the world market with a particular commodity, and, (*b*) of the capability of the natives to perform the necessary work

[1] "How to Expand Foreign Trade," *New York Times*, p. 7, Jan. 5, 1919. Also article in *Atlantic Monthly*, Dec., 1918.

efficiently. Concisely, the idea is simply that the resources of the whole world should be developed by the resident population of each region in the interest of the most economic production everywhere on the earth, so that all peoples shall eventually draw their supplies of each commodity from those areas having the lowest production cost in human effort (with equivalence of wages) for that thing.

Of course the policy outlined by Lubin goes against the prevailing conception of the nature of lucrative foreign trade. But the curious fact is, that if the trading groups among the advanced nations were to base their selling programme on Lubin's idea, they would create, almost immediately, a larger demand for their goods than now exists, and get correspondingly greater profits. The lower production costs resulting from the introduction of machine industry in the backward countries, coupled with higher wages that could then also be paid the workers in the factory industries, would give rise to an augmented demand and consumption of goods in those regions. One successful establishment would therefore encourage the starting of others of the same sort, and, indeed, make this possible by creating the demand for the commodity it produced. There would also be initiated a constantly expanding demand for specialized machinery, semi-manufactured articles, for the so-called "findings" in industry, and for various unique kinds of raw material, of which there is a surplus as often available in an industrially advanced nation as in backward regions. If, then, a market could be created for only so many items by making it possible for the backward nations to use them, because they could afford the finished goods due to the lower cost resulting

from their using their own human energies in elaborating basic stuffs; the general prosperity of all concerned would be promoted. The surplus labour released by discontinuance of hand manufacture, or, indeed, of primitive land cultivation, could be devoted to building up a more intensive or specialized agriculture in the backward regions, thus increasing the quantity and variety of the food supply. Or it could be used in road-building with a resulting increased demand for automobiles. This last would apply particularly to South American countries. Again it should be remembered that certain classes of commodities do not enter into export trade even with modern facility of transportation because of their bulk or their weight or because of a particular characteristic that makes them serviceable only in the region of production. Household and house-building materials in general are more or less completely debarred from foreign commerce for all three of these reasons.[1] But the setting up of a machine industry that would make household furniture of the home type available in greater quantity to the home consumer would bring in its train a whole row of opportunities for the sale of equipment and materials to this manufacturing industry by traders of other nationalities.

Only a cursory study of the statistics[2] of American trade with South American and Asiatic countries is needed

[1] In a recently published popular novel, this fact is strikingly brought out by the insistence of the native hero that the titled English visitor must see the "sash and blind" factory. Those who are familiar with American, Middle West, small-town industry will appreciate both the point and the humour of this.

[2] L. Hutchinson, "The Panama Canal and International Trade Competition," Chaps. VI, VII, VIII, New York, 1915.

to bring conviction that the great handicap to a larger, and mutually more profitable exchange, is the lack of commodities suitable for export to the United States from these two continents. The South Americans may buy, temporarily, by borrowing up to their credit limit, but in the end they must pay in goods or services. Hence, as suggested on another page, a most worth-while service that an American consular, commercial agent can render his home country will be to seek out diligently everywhere, every and any kind of good "buy" the country in which he is located affords, and to advise American traders and manufacturers of these opportunities. In the past American consular agents have devoted their energies almost exclusively to ferreting out opportunities to sell, under the delusion that through their efforts American exporters would be enabled so to outdistance competitors from other nations in selling that for the alien nationals there would remain only the melancholy task of buying the native commodities, not of selling to the natives. In this scramble for foreign trade it seems to be altogether forgotten that, in the end, the seller, if he will not buy from his consumer customer, must some time buy from his competitors. Otherwise the seller will get only gold and not either goods or services. Certainly a particular trader who sells, only, will be advantaged by the money profit he derives from his business, because he can use his gold to command the goods or services of his own countrymen; but why the trader's home nation, as a whole, should gain any satisfaction from this fact is difficult to perceive.

The most effective and economical location of production, utilizing to best advantage all the resources and all

the human energies of the world, can not, however, be attained as long as distribution remains so unequal as at present. While accumulation of capital is essential to the continuance and expansion of enterprise, its disproportionate concentration in the hands of a few makes for underconsumption, with apparent overproduction, and the application of an ever-increasing proportion of human energies to tasks that only serve for the creation of luxuries and equipment for ostentation, to be enjoyed by a privileged few. And part of the system which makes this concentration of wealth and purchasing power possible is the expensive institution of the middleman.

Various agencies are already functioning to bring about a reduction of all extraordinary concentrations of capital. Steeply graded income and inheritance taxes, and the lower rate of return on capital, due to increased demands of labour, are particularly effective factors in preventing inordinate increase of capital accumulation. But the chief defect of the system of distribution of the products of labour, as at present developed, is not affected by these governmental policies and industrial adjustments. It is necessary that the activities of the parasitic middleman be replaced by a less costly method of transferring commodities from the producer to the ultimate consumer.

If the young man of today (and of several generations back) can by thrift (abstaining from consumption) accumulate enough capital to "go into business" (and by business is here meant trading or commercial activity as distinguished from industrial processing) his enterprise is considered entirely laudable and commendable by the community. The thrift which makes this independent

career possible is not to be condemned; rather, in so far as it indicates abstention from frivolous spending and serves for the accumulation of capital for the enlargement of equipment for production, it is praiseworthy. But if he enters upon a mercantile career the young capitalist presumably will add one more family to the ranks of that class which depends for its livelihood primarily on its ability to interpose itself between various kinds of *producers*. It is true that traders, both wholesale and retail, perform a needed service, in that they maintain stocks of goods from which the consumer can conveniently draw. The trader's investment of capital is as much deserving of a fair return as any. The manner in which the trader functions and the multiplication of his numbers are, however, in a different category. The very fact that retail shop-keepers and their clerks are, in most existing enterprises of that kind, idle for half of the business day indicates a social waste. Except as expansion of population and production create opportunities, each addition to the ranks of the retail merchant must mean a further division of the total volume of business, hence an increased cost to the community in maintaining the functionaries. As a matter of fact it is quite probable that, except as population and production increase and provide new openings, the total number of traders does not increase. Those who make a start where there is no new opportunity either themselves fail or force an earlier established competitor to quit. This very fact suggests that those who can continue must charge a sufficiently high percentage above costs to insure themselves a livelihood. If the individual trader's shrewdness and foresight, his "business ability,"

is markedly superior to that of his competitors he may get more than his share of the total volume of business and reap a handsome return. But the fact remains that the multiplication of these services is already too great, their social cost too high, and those who try and fail in business make necessary a large minimum charge for "overhead" by those who remain. It has been estimated by one[1] familiar particularly with the practices of the retail trade that 25 per cent of the total consumer's cost could be saved if this, unnecessarily duplicated, shop-keepers' distribution could be made efficient.

The retail end of the competitive distributing system is its worst part, because in that it is so difficult to determine what the service costs. The wholesaler usually has an expert knowledge of the goods he deals in, he buys in large quantities, and he re-sells to the retail dealer who is, also, in some degree an expert as to the relative values of the offerings different wholesalers make. In any event the wholesaler's costs are fairly well known to the organized groups of retailers. But as between the retailer and the groups of unorganized consumers the same relation does not obtain. The retailer's chance to make a profit depends largely on his customer's ignorance of costs. If the consumer could go into a grocery store and see a sign, "The store bought these eggs at 40 cents per dozen, it offers them for sale at 60 cents," he would have some idea as to what he was paying for the retailer's services. Even if a law were passed compelling the display of such signs it would scarcely be feasible to authenticate the advertised cost price.

[1] Emerson P. Harris, "Co-operation," p. 85, New York, 1918.

This situation may be remedied, at least in part, by co-operative buying by consumers generally. While it is true that it is improbable that co-operation of this kind will revolutionize the present economic order, consumer's co-operation can do much to bring about a considerable reduction in the number of purely parasitic traders. Hence it is not possible to agree with Taussig [1] when he writes that, where co-operative buying is practised "by persons of the well-to-do or middle class, it has no considerable social interest. As regards the larger questions of social reform, there is little difference whether a shop-keeper makes his profits or a body of co-operators save a bit by substituting for him salaried agents." It would be as well to encourage workmen to smash windows and burn houses, to "make work," as to endorse this statement. The body of co-operators save a bit because they employ fewer salaried agents than the number of shop-keepers needed to do the same volume of business on the competitive basis, and they pay the salaried agents less. Hence co-operative consumer's buying, by whatever class it is done, has considerable "social interest." It has the further merit of leaving the consumer-producer free to concentrate his faculties on his more important function of production, instead of being compelled to dissipate part of his energies in trying to circumvent the retailer's concealed profit system.

Another device, indicative of the general pressure to reduce inequalities in the distribution of income, is the growing practice of professional men—doctors, dentists,

[1] F. W. Taussig, "Principles of Economics," second edition, Vol. II, p. 347, New York, 1915.

lawyers—to vary their charges according to the client's ability to pay. It may be urged that this practice is as indefensible as the retailer's schemes, but it should be remembered that the rich client knows that he is being charged more. In any event it is unlikely that the principle on which these discriminatory charges are based will find any wide acceptance in other business relations, hence the practice will probably not be a factor of importance in any readjustment of the distributive scheme.

In the foregoing pages the fact that the territorial societies—that is, nations—of the temperate lands are organized into states, and that the governmental activity that this implies is a potent factor in shaping the way and the degree in which the national domain shall be realized by the people as a whole, has been rather completely ignored. The reason for this omission was not failure to perceive the importance of governmental relations, but rather because so much emphasis has been put on this phase by students of the subject that other factors, such as those enumerated, were receiving too slight attention.

The success of Western civilization rests upon the acceptance and extension of democracy. The difficulty of democracy is to find representatives who can, and will, truly represent their constituents. Public opinion, as it might be brought out at a town meeting, is not readily ascertainable under the modern conditions of great populations and wide and diversified national territory. Even if it were discoverable it would not find a voice to make itself effective. As a result government is now too much, though perhaps not so much as it has been in the past, exercised in the interests of the few and too little for the general

good. And yet, quoting Laski,[1] "In sober fact, the welfare of the state means nothing if it does not mean the concrete happiness of its living members. The state, we broadly say, exists to promote the good life, however variously defined; and we give government the power to act for the promotion of that life. No political democracy can be real that is not as well the reflection of an economic democracy."

It is not that democratic governments are necessarily conspiracies on the part of the office-holders to maintain the *status quo* for the benefit of the favoured few. The difficulty is, rather, that politicians and the bureaucracy are always struggling to keep themselves in power and in possession of their positions. Even with this motive they are not able to work with set purposes and with definite knowledge of the ends they wish to gain, but only to grope and blunder, as is painfully apparent from a reading of chapters in "The Education of Henry Adams."[2] Hence it comes about that individuals and groups, usually those having considerable financial interests at stake and having even an inkling of what will serve them best (though they are often mistaken) can easily enough contrive to have their way in shaping legislation. Again, whether the interests that exert influence are individual or corporate, those persons who head them are in turn seeking primarily power and leadership. The limits of personal indulgence, made possible by great wealth, are soon reached; after that striving for domination in one direction or another,

[1] H. J. Laski, "Authority in the Modern State," pp. 28, 34, 38, New Haven, 1919.

[2] "An Autobiography," Chaps. VIII-XI, Boston, 1918.

with wealth for a lever, remains the only outlet for the energies of many able individuals. These leaders are severally in competition with other captains of industry, commerce, finance; what happens to the "concrete happiness" of the general average of the population, if not a matter of indifference, is at least not a matter of first concern to the protagonists. Yet perhaps the worst that can be said of the intent of the chief contestants, with regard to the public as such, is that the leaders are tacitly agreed that the public must not be allowed to meddle in the game. And the class of average citizens, understanding even less than the few leaders what is going on, because it knows less, is accordingly very effectively ruled out of any large part in government.

The evident remedy for this situation is publicity. As concealment of the percentage of profit is the bad feature of retail distribution, and as secret diplomacy has been, at bottom, the occasion for most of the evil in international relations, secrecy in government, also, has worked to hinder the promotion of the general welfare of the home nation.

A radical reduction in armaments will be a first step on the governmental side toward international goodwill. If the armament trade is not the black ogre that some writers paint it, it is at least quite certain that its secret relations with governments have not been such as would tend to promote peace. If, therefore, all the discussions, all the facts and figures, concerning contracts and understandings between the representatives of this trade and government officials were to be published during the progress of the negotiations, if the sittings of committees and

cabinets were held with reporters present, it is quite likely that much would not be attempted that in the past has been quite the current thing. William Allen White[1] is of the opinion that President Wilson's great mistake at the Peace Conference "was in not demanding absolute publicity for all meetings. Therein lay safety for the thing he desired. It could stand the light. And the things the others desired, if they were wrong, could not stand the light."

The principle is the same, whether it is applied with reference to the town council, the national cabinet, or the international peace conference; publicity means that only those things that can stand the light will ever be born. It is not necessary that all citizens take an active part in politics, as some insist. It should not even be necessary that each citizen waste part of his productive energies in prying into things. What is necessary is that all citizens be apprised of everything that is going on. That alone would probably insure that the government, as made up of officials desiring to retain place and power, would function to promote the good life of all citizens and not only for the benefit of the few who participate in "deals."

Not the least important of practical measures that would help toward securing governmental organizations more responsive to the interests of the general public would be a reform of the news press. As things are now, each newspaper is simply the medium of a particular kind of propaganda. This propaganda may be for national good or evil, or of little significance; but the wrong thing

[1] "The Peace and President Wilson," *Saturday Evening Post*, p. 58, col. 1, Philadelphia, Aug. 16, 1919.

is that the whole of practically every news sheet *is* propaganda. To suit the purpose some news is omitted, some not even sought; what is printed is so captioned and so phrased as to contribute to the policy in hand. There is a law to the effect that reading notices and all other disguised advertising must be labelled so that the reader can distinguish it from news items. It would be well to have a similar law to compel newspapers to print their news stories divided into parts of which the first would be *facts,* the second *descriptions,* the third *inferences* and *deductions,* and the fourth *propaganda.* A newspaper thus made up could afford its readers the opportunity to reject the interpretation offered as part of the stories; and the political reaction due to an accurately informed public opinion would be tremendous.

A variety of other reforms may be of service in bringing about a more complete co-ordination of the many elements that go to make up the social structure of the industrially organized nations of the Temperate Zones. The changes suggested in the preceding paragraphs are perhaps of greater basic importance, or have a broader geographic significance than others; in any case they indicate sufficiently the point of view herein contended for. To enumerate and elucidate further would have the effect of putting too remotely in the background what it is intended should be the chief argument of this chapter; namely, that if mankind is to realize in full its heritage of the earth, then the Temperate Zones must be made to produce to their maximum capacity, and that this end can only be attained when it is recognized that the geographic factor is of fundamental importance. Other factors may have

great significance, but the consideration given them should be secondary to that accorded geographic relations. In other words, each region of the Temperate Zones should be utilized to best advantage with reference to the particular resources it affords, first to supply the needs of the local population, second those of the nation, and third to meet the demands of world commerce. That is to say, in every area certain commodities can be produced at the minimum expenditure of human energy for local consumption, a lesser number, presumably, for the national market, and one or several things for the world market; and the inhabitants of each district ought to devote their energies to pursuits at least not incompatible with the geographic adaptations of the place.

This is far from being true now. But whether the change from the, geographically irrational, utilization prevailing at present would result in one or the other of the national groups becoming the chief, and perhaps the sole, production and export centre of a given commodity, at present uneconomically obtained from a variety of sources, should not matter. For the import of one kind of goods from the site best fitted to its production will be compensated for by export of other materials secured with similar efficiency in the home country. Despite the tariff barriers which they have set up against each other, the nations most advanced in industrial status have, in the modern period of world trade, always found their strongest competitors to be also their best customers. Hence it may be doubted whether the gradual removal of all customs' restrictions would produce any notable change in the established currents of world commerce. It would quicken

their flow and focus them on the exchanges that are mutually most advantageous. Again, it is unlikely that there would be any less diversification of industry in the several countries because of free interchange, for the local supply must always be at an advantage over that coming from a distance, and the home market is the easy, immediately accessible one. But if one region has a preponderant geographic advantage for the production of a given commodity it certainly is folly for society generally to refuse to participate in the benefit to be derived from the natural adaptation.

All this, however, presupposes a substantial equivalence in labour costs in the different nations. Whether this equivalence is secured as it is, indeed, very nearly now, by the superior skill and greater efficiency of artisans in the advanced nations offsetting the lower wage of less competent workers in the backward regions, or, if and when these less competent workers are educated to greater efficiency by the fixing of wage standards through international organization of labour; or if equivalence is got by governmental measures, everywhere effective, to prevent the exploitation of labour; many benefits will follow in the train of its accomplishment. The chief dread of foreign competition will be removed. The higher standard of living due to higher wages will engender everywhere an enormously increased demand for goods and machinery, leading to development and intensification of industries in all countries. The chief incentive for export of capital will disappear, and this will encourage the employment of additional funds at home, at a lower rate of return, and thus tend to level up inequalities of distribu-

tion. Foreign investment, to finance the pioneering necessary in new countries, can nevertheless be managed by inter-governmental credit advances, as between the Allies during the World War.[1]

Accompanying progress toward the complete utilization of the resources of the temperate lands, and the equalization of the human conditions of production, there will also necessarily be a general rise in the standard of intelligence of the temperate-land populations concerned. With education and better living conditions, increase in numbers beyond the available provision, at the time, for adequate subsistence will be checked. Stationary populations and the prevention of immigration into those countries where food consumption approaches food production will insure the retention of favourable conditions, and mark the attainable goal in general comfort both for the under-populated new countries and the over-populated old ones. New food resources, and the possibility of devoting an increasing proportion of human effort to intensification of agriculture, through release of workers from other tasks, by application of new inventions and mechanical energy, will undoubtedly permit further expansion in numbers or perhaps relieve the pressure where numbers are now too great. But the successful inheritance of the temperate lands must always be based on the standard of adequate subsistence for everyone, and equitable apportionment of so much of

[1] The "Bank of Nations" that Senator Gilbert M. Hitchcock proposes to establish (Senate bill No. 2187, introduced June 29, 1921) would function precisely in the way here suggested, and would serve to eliminate the evils that result now from the private export of capital.

the greater share of production as superior native endowment, application, and ability to learn and save, entitles the individual to possess. The extra reward will then be measured almost solely by comparative values of different services to society as a whole. No Utopia will have been achieved when these conditions are realized, but there will be a much closer approach to amity between classes within the nations, and many of the bases of international discord should also disappear.

CHAPTER VIII

INHERITING THE EARTH—THE CONQUEST OF THE TROPICS

Part I—The Complementary Status, the Environment, and the Resources of the Tropics

POPULATIONS are expanding rapidly in all those parts of the world that Western civilization has invaded and particularly where its industrial mark, the processing of raw materials by machine, is evident. The statistics from Japan, for example, show this very clearly. In the period of forty-three years (1871-1914) immediately following the opening of the land of the Mikado to European influences, the population of Japan increased three times as fast as it had in the period of forty-three years preceding 1871. Numerically the growth was from 33,000,000 in 1871 to 54,000,000 in 1914.[1] The census returns from India, Java, the Philippine Islands, Egypt; from all the colonial settlements of Europeans, indicate similarly rapid increases in numbers; in fact only from China, central Africa, and France is there evidence of stationary or decreasing populations. Despite war losses of 500,000 men it is reported that Italy's population in 1920 was larger than it was in 1914. This is due to the high birth-rate in Italy, and the increases are largely concentrated in

[1] W. F. Willcox, *op. cit. ante*, p. 750.

the cities.[1] Two centuries ago the total population of the earth was about one billion people, now it is nearly one and two thirds billions.

Will it be possible to continue the expansion of the world's food supply in proportion to the ever-increasing numbers of which these figures give prospect? In addition, will it be possible to maintain the standard of living that now exists and, indeed, to raise it?—as has been done during the last fifty years. The answer to these questions is not necessarily the optimistic "yes" returned by Smith[2] in a recently published book. Though Smith hedges his predictions with many conditions, his pages nevertheless foster the expectation of a veritable avalanche of food in the decades to come. While it may be true that there will be an adequate provision for many more people than now inhabit the earth, there should also be a full appreciation how this increased production must be circumstanced, lest an unreckoning faith imperil progress.

Even Smith recognizes that the possibilities of extending food supplies as referred to at least one commodity, meat, are slight. Domesticated animals provide man with a machine for elaborating green vegetation (which man can not assimilate in quantity) into meat, and dairy and poultry products, that are highly nutritious. But the edible yield that results from use of the animal machine is slight in comparison to the acreage required to stoke the organic engine with raw, vegetable fuel. To produce an amount of pork that is equivalent in food value to the

[1] Quoted by *New York Times*, Feb. 8, 1920, sec. 1, p. 8, from bulletin issued by Italian Discount and Trust Co., New York City.
[2] J. R. Smith, "The World's Food Supply," New York, 1919.

grain needed to feed the pigs, four times as much land is required; in the case of grain-fed beef and mutton the ratio is as fifteen or twenty-five is to one, and if meat is to be produced by grass pasturage even vaster expanses must be available to get a pound of flesh. While the dairy and poultry industries do afford higher returns and are, therefore, an ultimate stage in the utilization of animals as elaborators of food, it is, nevertheless, evident that the total land area of the world, even if all unutilized acres were available for pasturage, is much too limited in extent to permit of any great increase in the production of meat.

Indeed, the greater part of the best lands must already be devoted to intensified agriculture in order that the existing human population may be supported. Because some lands can not be cropped otherwise than by pasturage, because cattle on the farm utilize inedible portions of the cultivated plants and maintain the fertility of the soil, because by preservation of corn fodder through ensilage vast yields of green stuffs can be produced for animal feeding, because by breeding European cattle with the Indian Zebu, a hybrid, immune to tropical cattle diseases, may be obtained, because great reindeer herds [1] may at some time yield a return in meat from the lichen growth of the arctic tundras, and other similar expedients and developments, there will be increased production of meat

[1] Carl J. Loman, "The Camel of the Frozen North," *National Geographic Magazine*, Vol. XXXVI, No. 6, p. 539, Dec., 1919. In the *Daily Consular and Trade Reports*, United States Department of Commerce, p. 1247, March 3, 1920, the formation of a reindeer company with a capital of $750,000 is reported. It has obtained a concession of over 75,000 square miles of land north of the Churchill River from the Canadian Government and proposes to raise reindeer and caribou, and market the flesh of those animals.

and animal products; but the process at best is too demanding of actual acreage to permit of any expectation that it can keep pace with the growth of population. Even though they do elaborate inedible materials, animals are too extravagant in their use of land. Accordingly, man must in the future expect to rely, much more exclusively than he has in the past, on the direct production of the vegetable world to supply him with food. Incidentally, however, it should be remembered that the surface of the sea is a vast pasture, the bulk of green plants growing in its upper waters much exceeding that of a field of lush grass and that, as yet, man has been very little able to utilize these ocean meadows. But as it has been established that salmon return to their native streams to spawn, it will be profitable for owners of canneries on each stream to maintain private hatcheries, sending out each year a myriad of young fry to feed on the ocean ranges, which will later return as full-sized fish for the catch. While this is an intriguing possibility, it will, of course, be understood that it can scarcely be depended on to augment greatly, in the near future, the world's supply of meat food.

Nevertheless, there remain wide areas of sparsely peopled lands in the Temperate Zones suitable for the production of various kinds of human food. But the utilization of these lands, for agriculture, is beset with difficulties that are not always given adequate consideration. In the first place the thinly populated lands in the Temperate Zones are remote from the present centres of food-consumption, hence their yield must be transported farther than competing products from nearer sources to enter the market. The price (using this as a measure of the human sac-

rifice involved) of a bushel of grain, must, accordingly, be higher than the last prevailing rate in order to induce pioneers to attempt the extension of the cultivated area. But a higher price in itself indicates a relatively greater scarcity of the product, hence, as referred to increases in the total of food available due to higher price, supply will always tend to lag behind demand. The reclamation and utilization of arid and swamp lands [1] is subject to the same limitation in its relation to the world's need of food.

In fact, the higher price which induces the extension of the grain lands into the cattle-raising areas is really only the expression of a recourse to the ultimate resort, at any time, for more food. This becomes clear on consideration that even a slight increase in price will result in agriculture in some degree more intensified—by better cultivation to increase yields, and by substitution of crops requiring more labour, but giving higher returns per acre. The marginal lands, in both the economic and geographic sense, are brought into use only as diminishing returns from expedients of this kind, and a further rise in price, make the extension of agriculture into the remote and difficult areas profitable.

The expectation of greatly augmented food supplies in the future from the yet unused lands of the Temperate Zones is due, in part, to a misconception in regard to the reasons why food became cheap and plentiful during the last half of the nineteenth century. That phenomenon was brought about, it is true, by the availability during that time of vast areas of virgin lands, but coupled with

[1] C. S. Scofield, "The Geographical Factor in Agricultural Industries," *Geographical Review*, Vol. I, No. 1, pp. 48-49, Jan., 1916.

that great opportunity there was the added fact of the adaptability of those new regions to machine cultivation. The development, in the same period, of farm machinery (including the roller process for grinding wheat, and the cotton gin) the development, also during that time, of machine production of other commodities and, most important of all, the development of efficiency in bulk transportation by rail and steamboat, are items of the greatest significance in explaining the cheap food of the decades just passed. Usually, however, it is only the virgin lands that are remembered; these other factors, which were probably of far greater import, are either completely overlooked or given slight attention. The improvement and adaptation of farm machinery to wider uses and new crops is not yet at an end, and many more devices for saving time and labour in industry and transportation are in prospect of application. But so complete a reordering of commerce as was wrought by the Industrial Revolution, which, in particular, made possible the world exchange of food products in bulk, can not be effected by these further elaborations. Hence it is not to be expected that another era of cheap food will result from their utilization. The remaining new lands of the Temperate Zones are sources from which the world's food supply may be supplemented; they do not constitute, as did the virgin areas exploited during the past fifty years, a vast untapped reservoir on which centres of congested population could draw freely.

Inventions and discoveries, such as improvement in the refrigeration and evaporation of vegetables, will make possible the preservation of much food that now goes to

waste. The farm-tractor and the motor truck, the centrifugal milk separator and the mechanical milker, much increase the efficiency of man power on the farm and render some new lands available. Plant-breeding and tree crops, new fertilizer supplies and better and novel methods in cultivation, such as the spraying of fruit and the use of explosives, will increase yields without entailing the expenditure of more labour.[1] Land used for grain crops from which alcoholic liquors were made, and that used to grow indigo, has become available for food crops; better methods of distribution will more and more reduce the cost of handling.

It may be that public purchase and warehousing of excess production in one season, or one region, will in the future both insure the grower and protect the consumer against great price fluctuations. The significance of no one of these possibilities, or of other similar items that have not been enumerated, in the future agricultural utilization of the Temperate Zones should fail to get consideration. Nevertheless it is improbable that, collectively, they would avail to maintain foods at present costs if populations continue to expand in nearly the same ratio as they have in the decades of the recent past.

It will, however, be possible to get much more food from the Temperate Zone lands by the expenditure of a greater amount of effort on them; that is, by intensifying agriculture markedly. But culture of the land will not be so intensified until higher prices can be got, for more labour

[1] See, on this, "The Backwardness of Italian Farming," by W. H. Johnson, *The Review* (weekly), New York, Vol. I, No. 30, pp. 640-641, Dec. 6, 1919.

will be required, and this labour, further, will demand higher pay; farm life will need to be made much more pleasant, wholesome, and profitable than it is at present, if it is to attract adequate man power. In other words, expansion of the food supply from the present areas of production, commensurate with the probable demands of future, greater populations, can only be realized by diverting to the tasks of agriculture a far larger proportion of human energy than it now commands. Much more food can be had at much higher prices.

While plentiful food at high cost is not a solution of the problem that will be received with gusto by those who hold that food must be cheap if progress is to be insured, the gloomings of this school at the prospect will probably not contain any suggestion that the difficulty may be overcome by approach from another direction. If labour must be withdrawn from industry for use in agriculture, then, if the standard of living is to be maintained and improved, industry, as distinguished from cultivation of the land, must be made increasingly efficient, so that the supply of elaborated commodities may continue to be available, not only in undiminished but, indeed, in much expanded volume; that is, at lower cost. Agricultural production is hemmed in by limitations that do not apply to industry. Vast known and other, undetermined, potentialities for harnessing and directing natural energy are open to exploitation. The future may see the development of elaborating processes on so large a scale and so economical of human effort that a small fraction, merely, of the labour these processes now entail will then be required. A random illustration of what has already been accom-

plished in this direction will serve to make clear how effective new inventions and discoveries may be, in enlarging the stream of goods needed to supply human wants and to increase creature-comforts. So simple a tool as the modern plough required 118 hours of human labour to make, when done by hand, but only 3 hours and 45 minutes, when wrought with the aid of machines.[1] This is in the ratio of 31½:1 in time required; the money-cost ratio, 7:1, while not so high, is nevertheless sufficiently great to indicate the remarkable relations that here obtain. Far from being a special instance, this is only typical of the average change in production cost, as governed by the labour item, brought about during the Industrial Revolution. The saving of human energy has, indeed, been even greater in other branches of industry. The farmer, however, did not share proportionately in the benefits these improvements conferred, hence food became cheap; but similar development of industry in the future should make it possible to pay the farmer more and get the mechanically processed commodities for less.

It has been pointed out in preceding sections that machine production, the factory system in industry, is being rapidly extended to all parts of the world, and that it will serve the best interests of all the nations concerned, actively to aid this development, particularly in the so-called backward regions of the Temperate Zones. The net outcome of the resulting expansion of industry will be increased pro-

[1] "Hand and Machine Labor," *13th Annual Report of the (United States) Commissioner of Labor*, Vol. I, p. 20. Two vols., 1898, Washington, D. C. Hundreds of similar comparisons will be found in these volumes.

duction, and a growth of commerce following the lines of the present channels of world exchange of commodities. But, as time passes, and the lesson is learned, in all the Temperate Zone regions, of developing into consumer's products all the raw materials their varied natural resources afford, and of the particular kind that the genius of the human inhabitants there domiciliated makes most profitable, world commerce between Temperate Zone areas must become more and more specialized. Its volume may not be less but its characteristics will change. Instead of the exchange of raw materials for consumers' goods that now prevails, there will ensue the exchange of wares characteristic of one country for the similarly unique products of another.

As this state of affairs slowly develops, all the varied environmental provisions of the several areas of the Temperate Zones will be utilized with increasing refinement. Then it will become evident that the only remaining source from which vast bulk of crudes may be drawn is the equatorial belt of the earth's land; and the conquest of the tropics will be begun in earnest. And, in this connection, it should be remembered that, while food is man's chief need from the soil, and food requirements have, accordingly, been considered in some detail in these pages, it is equally significant that the land must be depended on to provide the world with most of its fibres: cotton, wool, linen, hemp, and pulp for paper; also rubber, vegetable paint-oils and soap-oils; and forest and mineral products. Indeed, the limitations of industry, like those of agriculture, will be marked ultimately by the total output possible in all extractive pursuits. The forest sources of wood-pulp

for paper are already failing in the Temperate Zones, and, as in this case, so also will other deficiencies compel an increasing resort to the tropics for supplies. Again, because the climate of the tropics is less well adapted to efficient factory production than the temperate lands, the equatorial regions bid fair to become, in future centuries, the world's great farm.

World trade, in consequence, as measured by bulk and value both, in ever greater proportion should follow north-south routes. East-west trade will grow in actual quantity, for diversity of resources does exist between lands of the Temperate Zones and on those differences interregional commerce is fundamentally based. Each community will supply world trade with certain commodities that quantity, quality, and favouring juxtaposition of natural resources and acquired skill give particular groups special advantages in producing. Trade between regions of the temperate lands will expand because, as life activities become more varied, the needs and wants of erstwhile backward groups will be in like measure enlarged. Because, however, the dominating potence of the factor of climatic difference finds in the relation of the Temperate and Tropical Zones its extremity of divergence, these are the essentially different areas of agricultural production, hence naturally complementary trade areas.

It is historically fitting that the prevailing direction of movement of goods overseas should ultimately be over north and south lines. World exploration was first motivated by the desire for the products of the tropical lands; on trade between the tropical lands and the temperate

lands world commerce was founded. Hence, though the tremendous expansion of world trade has come about over the east-west route between the Old World and the New, the final stage in world development and utilization will, very appropriately, be marked by a return to a dominantly north-south exchange of goods.

While this change in the main currents of the world's trade is already in progress,[1] its complete realization presumes the occupation and development of the tropical lands in a much more comprehensive measure than has as yet been attained. The tropical lands are, pre-eminently, the unutilized lands of the earth. Smith [2] asserts that "today ninety per cent of the tropic forest stands virtually as undisturbed as in the day of our arboreal ancestors," and implies that the same lack of development is the characteristic mark of all tropical areas. In a broad sense this is true, but so stated the problem is only indicated; an informed understanding of what is involved in the conquest of the tropics must be based on an appreciation of their actual diversity of aspect, and the effect of those differences on human enterprise.

First of all it should be emphasized that, climatically, the single, uniform characteristic of all tropical lands is their steady, unceasing, and unvarying warmth. Jeffer-

[1] In 1914 the exports of tropical agricultural products from the chief tropical producing areas amounted to $1,866,000,000. Approximately one third of the sum total in value of all imports into the United States in 1914 was tropical agricultural products. E. V. Wilcox, "Tropical Agriculture," p. 31, New York, 1916.

[2] J. Russell Smith, "Industrial and Commercial Geography," p. 664, New York, 1913.

son [1] makes this very clear by means of a series of temperature graphs showing the actual daily and seasonal variations in the degree of heat through the year, and in the contrasted summer and winter months, in tropical stations. In these diagrams the superimposed lines of the temperature curves, for both the hottest and coldest months of typical tropical stations, everywhere interlace. In other words, night is the winter of the tropical areas, whether highland or lowland, for the temperature range between day and night is as great, or greater, than the seasonal range. The variability in temperature from day to day is only a matter of two or three degrees; moreover, the term "torrid zone" is a misnomer, for this steady temperature is warm rather than hot. Indeed, tropical uplands are steady-cool, rather than steady-warm, and while their range of temperature between seasons is perhaps ten degrees, as compared to one or two degrees for near-sea-level stations, and while the daily range in tropical uplands extends over twenty to thirty degrees, whereas lowland places have only fifteen to twenty degrees of change between day and night, the variability of temperature, or difference between one day and the next, is the same for both kinds of situations, and is measured by only one or two, or, at most, three degrees. The greatest extremes in temperature within the tropical regions are found in dry continental interiors, as for example interior Africa and Australia, where a range of twenty-five de-

[1] Mark Jefferson, "The Steady Warmth of the Tropics," *Bulletin American Geographical Society*, pp. 346-348, Vol. XLVII, 1915. *Idem.*, "The Real Temperatures Throughout North and South America," *Geographical Review*, Vol. VI, pp. 240-267, 1918.

grees between day and night is encountered. Finally, the average temperature of tropical, sea-level stations, throughout the year is 80 degrees F.; at 11,100 feet elevation it is 48 degrees F. in winter, and 55 degrees F. in summer, so that the decrease with elevation is almost exactly equivalent to the standard fall of temperature of one degree for every three-hundred-foot rise in elevation, and summer extremes are only slightly more marked in the highest uplands. The temperature of the tropical lands is everywhere steady.

Hence, in respect of temperature, it is manifest that the antithesis of the tropical-land and temperate-land climates is that the former are almost inconceivably steady-warm, not torrid, while the temperate lands may be, and commonly are, very hot at one season and very cold in the other; differ greatly in temperature averages from place to place, in response to other factors than that of elevation, and, above all, are marked by extremes of variation from day to day, from season to season, and between one year and the next.

If consideration went no further than this it might be concluded that all tropical regions are remarkably uniform in climate. But a conclusion thus arrived at would overlook the importance of precipitation differences, both as to amount and distribution through the year, as a factor in climatic variation, and, hence, in the regional aspect of tropical areas. In fact tropical regions are quite diverse in appearance and in relation to organic life; and this variation results almost exclusively from rainfall differences.

The most recent, thorough, and satisfactory classifica-

tion and subdivision of the world into climatic regions is that by W. Köppen.[1] The climatic provinces encountered in the Tropical Zone, according to Köppen's scheme, fall first into two major subdivisions, (*a*) The tropical Rainy Climates and, (*b*) the Dry Climates. Under each of these there are two further great subdivisions, (*a*1) the Hot Damp, primeval forest climate, (*a*2) the Periodically Dry savanna climate; (*b*3) the Steppe climate, and (*b*4) the Desert climate. The first two of these secondary divisions may be conveniently designated, areally, as the Tropical Rain Forest regions and the Tropical Jungle regions. Over limited areas within the tropics, particularly just north of the Tropic of Capricorn, in both South America and Africa, there is encountered a fifth subdivision, (*c*5) Warm Climates with Dry Winters; these may be considered as the extreme of subtropical climates. Their occurrences coincide generally with the upland areas of the Tropical Zone, as, for example, Abyssinia.[2]

The Tropical Rain Forest areas have, up to the present, most obstinately of equatorial lands, resisted development by man. The basins of the Amazon and of the Congo, and the islands of the East Indies and of the Philippines, are type occurrences of this nature. Their inhospitality

[1] Klassifikation der Klimate nach Temperature, Niederschlag und Jahresverlauf," *Petermanns Mitteillungen*, Vol. LXIV, 1918, pp. 193-203 and 243-248 with maps and diagrams. Reviewed by R. DeC. Ward in *Geographical Review*, Vol. VIII, 1919, pp. 188-191, with map and references to earlier contributions on the same subject.

[2] Planimeter measurements, made by R. S. Lee under direction of the author, of Köppen's map show that 20 per cent of all the area of these five tropical climatic provinces is rain forest, 29 per cent savanna or jungle, 18 per cent steppes, 24 per cent deserts, and 9 per cent temperate uplands.

to both savage and civilized man is owing to a variety of circumstances. They are, in the first place, regions of abundant rainfall throughout the year. The enormous precipitation, coupled with the steady warmth, supports a forest, vast and unbroken, made up of huge, lofty, and prevailingly hardwood trees, and so dense in stand as to create a perpetual twilight under the canopy of the leafy tops. The near-ground-levels are obstructed and beset by great, interlacing vines, fern and moss growths, and projecting roots. All this exuberant vegetation, comprising thousands of species of plant life within narrow areas, curiously enough, includes few, if any, varieties that afford food for man. Thus the savage, dwelling in the dank, rain-forest shade, is compelled to depend on fish and animal life for sustenance. The tangle of vegetation and the swamps make it difficult for him to travel far, the hardness of the trees renders futile any attack on them with primitive tools. Even if the savage could make a clearing the vegetation would shoot up and smother it under twenty-foot growths within a year. Domestic animals can only be maintained with difficulty, if at all, because there is no food for them, and they do not thrive because they are plagued, as is man also, by great numbers and many varieties of noxious insects. The bites of some of these insects are very poisonous, others of them serve to transmit infectious disease. Dangerous wild beasts and great snakes add further to the uncertainty of life. But the prime difficulty of savage existence in the Rain Forest is deficiency of food supply. Indeed, it is inferred that man has occupied the interior Rain Forest of Africa only in comparatively recent times, because of the failure to

find relics of a primitive culture in those areas.[1] Even animal life is scarce in certain areas.

Civilized man covets many of the non-food products of the Rain Forest, but is handicapped, especially, in his attempts to secure these by the obstacles that the nature of the forest interposes, first, to transportation through it, second, to its removal, and third, to the cultivation of the ground it occupies. Again, civilized man suffers even more than does the native from the endemic diseases of the Rain Forest. And he is at a loss to provide himself with suitable shelter when he finds that the abundant wood of the Rain Forest, from which he could expect to construct a dwelling, is, for the most part, so hard as to dull a saw almost immediately it is applied, and to resist absolutely the driving of a nail.

In contrast with the conditions imposed by the Rain Forest, the life of the savage in the Tropical Jungle is much easier, in fact too easy for progress. Existence in the jungle involves no incentive for sustained or constructive effort. The jungle lands border the more equatorial Rain Forest, and are regions where the rainfall, while heavy, is less constant and is seasonally distributed; a wet season is followed by a dryer period. The vegetation is perhaps not less dense than that of the Rain Forest, but the trees are not so tall, and many varieties of the shrubbier types of plants are encountered. Growth does not continue unchecked through the year; the indigenous

[1] R. Zon, "Forests and Human Progress," *Geographical Review*, Vol. IX, p. 140, Sept., 1920, quoting H. H. Johnson, "A Survey of the Ethnography of Africa," *Journal Royal Anthropological Institute*, Vol. XLIII, p. 396, 1913.

species of plant life make provision for maintaining existence over a dry season. Fruits, seeds, nuts, and grains, all of which include food substance in their composition, are produced, and of these man eats. It is, indeed, rather remarkable how greatly man is dependent for food on the germinal provision of other organic life. Eggs and milk from animals, roots, berries, fruits, seeds, grains, and nuts are chief items in man's dietary.

Accordingly the jungle savage needs but extend his hand to pluck plantains, bananas, and pawpaws, to gather wild rice in Siam and edible bamboo-seeds in India. Along the tropical sea-shores coconuts furnish meat and "milk." The breadfruit tree, the sago and sugar palms, and the jackfruit tree need only protection after planting to furnish food abundantly. The jungle can be hacked down in wet weather and the debris burnt in the dry season, thus making possible the creation of open ground in which yams, sweet potatoes, and cassava, yielding starchy foods, and nitrogenous beans, warmth-loving plants, can be primitively cultivated.

In the jungle lands, therefore, most progress has been made in introducing organized, plantation culture. But the jungle lands, too, have their difficulties. The soil, under cultivation, rapidly loses its fertility. Vegetable organic matter decays so rapidly and completely that little humus accumulates. Soluble mineral elements, which plants incorporate into their tissues, are quickly leached out of the soil by the abundant warm waters that percolate through it. It is possible to keep down weeds, but rank tropical grasses often overrun the cleared spaces, growing man-high and so tough of root that the draft animals

ordinarily in use can not drag a plough through them. As in the Rain Forest, so also in the Tropical Jungle it is difficult to keep domesticated animals in good condition. Domesticated animals, therefore, supply but little manure. Moreover, all sorts of little understood bacterial diseases, blights, rusts, rots, and insect pests attack the cultivated plants, themselves flourishing almost in direct proportion to the luxuriance of the vegetable growth.

Beyond the Tropical Jungle is encountered the Tropical Steppe, merging on one border through typical prairie and shrub into the jungle; while on the other side it grades into the absolute drouth of the Tropical Desert. The grassy steppe lands of the tropics are typically the home of pastoral nomads. Using the camel as a beast of burden, other nomads, wandering from oasis to oasis, or engaged in trading journeys, sparsely populate the Tropical Deserts of the Old World. Southwestern Asia and Arabia, the Sudan and the Sahara, the campos of Brazil and the llanos of Venezuela are type regions of Tropical Steppe and Tropical Desert. On the better-watered and grassy steppe lands the inhabitants get sustenance from herds of cattle, horses, sheep, and goats; in the deserts the camel supplies meat and milk. The date palm is the chief source of food in the Old World oases and the surplus fruit from this tree is the most important commodity of the caravan trade. Around springs in the steppe lands and on especially well-watered oases some grain growing is possible.[1] The desert and steppe soils may be, and over large areas are, good; natural vegetation is lacking or is not of a kind

[1] Jean Brunhes, "Human Geography," pp. 415-452, Chicago, 1920, gives an admirable account of the culture of oases in the Sahara.

to make difficulties for cultivators; the wide expanses of these lands are undeveloped because they lack an adequate water-supply, not because of too high temperatures, as is commonly thought. Where water has been available, because of the monsoon or other periodical rain-bearing winds, or because of a large river furnishing the needed supplies for irrigation (now also secured from deep wells, as in India, for example), the earliest civilizations of the world have developed; and there is no reason why all those areas should not again support prosperous populations, contributing their part also to the world's demands for commodities; except that the nations of the earth lack understanding of their proper administration, or are unwilling that the native residents have an adequate share in the resulting prosperity.

These, then, broadly considered, are the several regional aspects of the tropics. Steady, unfailing warmth prevails over all the equatorial areas. This steady warmth is at once their great natural asset and the mark of their characteristic difference from the other lands of the earth. But the development and utilization of wide areas of the tropics, by the white race, to be great farm colonies for the production of food, has not been prevented so much by the moderate, regular heat of the equatorial regions, as by the varying conditions of precipitation they present. The uniform warmth of the tropics is enervating, but the amount and the nature of rainfall their several regions receive both fix the climatic aspect and interpose the sensible difficulties to Occidental culture. Again, it is the extremes in which the precipitation factor manifests itself that particularly handicaps developmental activities in

the tropics. The almost complete lack of moisture in trade-wind deserts, the daily downpours in the latitudes adjacent to the equator, and the parching, seasonal drouth that occurs in the intermediate regions, together present a complete contrast to the uniformity of the temperature relations.

It is also a fact that, except for the areas of complete desert waste, these rainfall differences are each responsible for a particular kind of indigenous plant growth, and civilized man has use for many of these. But while he can use some of these species, and indeed would much welcome an extension of their production, it is the exceptional difficulty and the prodigious labour necessary to eliminate those growths for which he has no use, at least at present, that deters man most in the agricultural development of the tropics. The "weeds" of the tropics flourish exceedingly and their obstinate resistance is no mean impediment to the extension of man's domination of the equatorial lands.

Before, however, considering the problem of how human labour may best be applied, in view of these difficulties, to the conquest of the tropics, it is necessary, for an adequate understanding of what is therein involved, that the extent of the world's present dependence on tropical products be brought to attention. A statement intended to serve this purpose must be, in the first place, sufficiently concise to permit its content to be grasped in entirety, yet so much of the detail must be included in it as will make possible a realization of the particular significance of the different items.

If it be accepted that the critical factor in determining the world's future material well-being (and, hence, the

opportunity of each individual for intellectual development) is the matter of man's ability to provide an adequate food supply for all the human population at any time existing, then it follows that first consideration must be given, in a summarization of tropical products, to the actual and potential sources of food material these lands do, and may in the future, provide.

In the wet, hot, summer climates of the Tropical Zone, rice is as much the chief food material as wheat is in the Temperate Zones, perhaps even more so. Indeed, the food value of the annual rice crop of the world, expressed in calories, is double that of the world's wheat crop.[1] Moreover, the yield of rice averages between 32 and 34 bushels per acre in regions adapted to its growth, while the average yield of wheat in the United States, for the five-year period between 1907-11, was only 14.5 bushels per acre. Rice is the great food staple of the, at present, densely populated areas of the Tropical Zone, India, the Malay Peninsula, the East Indies, China, Japan, the Philippines and Egypt, and has, indeed, been the chief factor in making dense populations possible in most of these lands.[2] Because it is so largely consumed in the countries where it is grown, rice does not have the prominence of wheat in the world's export markets, and its importance

[1] G. B. Roorbach, "The World's Food Supply," *Annals American Academy of Political and Social Science*, Philadelphia, Publication No. 1148. This paper is the authority, also, for other statements, bearing on related topics, made in these pages.

[2] Millet, of which the acreage in tropical lands is almost half that of rice, together with coconuts, bananas, plantains, and various starchy tubers, sugar cane, and a great variety of fruits, are the other main food staples of native, tropical peoples.

as a chief food reliance by one third of the world's population is, therefore, not generally appreciated. Again, while rice can be successfully and profitably grown outside the strictly tropical areas, it nevertheless thrives best in regions where the summers are wet and hot; precisely the conditions that prevail in the equatorial, rain-forest belt. The success recently achieved in growing rice on the Texas-Louisiana Gulf Coast, by use of machinery, is, accordingly, very suggestive, for it is indicative of the tremendous expansion of the rice crop that may be possible when power is used to clear and drain the tropical swamps, and when cultivation with machines supersedes the primitive, garden culture that now prevails in Oriental rice-producing areas.

Next after rice, sugar is the most important, tropical food product. The bulk of the total rice crop of the world is only about one third that of wheat, whereas one half the mass of the world's sugar is derived from cane grown in the tropics. Moreover, while wheat growing in the Temperate Zones is for the most part done efficiently, through machine production, therefore directly in contrast with the garden-cultivation conditions under which the bulk of the world's rice crop is secured in the tropics, the reverse is true of the production of sugar from the beet in the temperate lands and from cane in the tropical regions. To get a satisfactory yield from sugar beets in the Temperate Zones it is necessary that the plants be set out on the best of soils, deep, fertile loams, and the successful cultivation of the crop requires an enormous amount of laborious toil. Deep ploughing, pulverizing of the top soil, hand-thinning of the plants, and hand-weeding are all essen-

tial, as are also many cultivations while the crop is growing. Consequently sugar beets can be grown profitably only where the population is dense and the standard of living low, and, even so, culture of the sugar beet entails displacement of other food crops, suited to temperate climates, from the best lands. Only where climatic uncertainties could be eliminated by the practice of irrigation, and where newly arrived immigrants could be had in numbers to do the great amount of manual labour necessary, has sugar-beet growing been profitable in the United States in competition with Louisiana cane; and Louisiana cane production itself survives only by virtue of protection, through customs duties, from the unrestricted competition of the major, tropical, cane-sugar areas.

Sugar cane, unlike the beet, grows best where the soil is low and moist, and where the temperature is uniformly high, and the sunlight, while intense, is interrupted by frequent showers over a growing season that extends through the whole year; typical conditions of the equatorial, rain-forest climate. In the subtropical, Louisiana winter frosts injure the stubble and the cold weather that then prevails reduces both the tonnage of the cane and its sugar content. Sugar-cane planting is easy, and the care that the cane requires subsequently is slight, in comparison with that demanded by the sugar beet; steam ploughs and tractors are already in use in the cane fields. The chief labour difficulty experienced in the growing of cane is that involved in transporting the heavy stalks promptly to the mill. The best equipped plantations, accordingly, utilize portable railway tracks and small engines to move the bulky crop over the muddy fields. Sugar-cane growing,

therefore, offers a great opportunity for exploiting vast, undeveloped tropical lands by effective machine methods. The scarcity of sugar during the Great War, due, primarily, to the elimination of the vast amount of beet sugar, normally produced in central Europe, from the world market, combined with the high prices of sugar in the post-war period brought about a considerable expansion in tropical cane-sugar production. Except as the impoverishment of the European peoples compels them to resume beet-sugar growing by hand labour, on an even vaster scale than before 1914, in order to secure a crop which can be readily exchanged for other raw materials, this expansion of cane-sugar production in the tropics bids fair to continue. As yet, all the tropical supply of cane sugar for export comes from plains extending to the seashore; from areas where ocean transportation is immediately at hand. With the development of adequate facilities for overland transportation sugar production can be profitably extended inland from the existing plantations, and vast new areas of tropical lands will, through this crop, be introduced to world commerce.

The decline in the meat-supply, in comparison with increasing population, and the accompanying decrease in the quantity of animal fats available, both for food and industrial uses, were bringing about, just before the Great War, recourse, on a large scale, to other sources of edible oils. Olive oil and cotton-seed oil had long been used, and the peanut, in the shape of peanut butter and peanut oil, had also become an important food material. More recently still, production of the soy bean and its oil was greatly

expanded to meet this new demand. But all of these, distinctly subtropical, sources of edible vegetable fats and oils in the last few years have been subjected to the competition of similar products derived from the coconut, which grows only on tropical lowlands. Fresh coconuts have long been used by the peoples of temperate lands as an occasional food, and dried coconut meat (copra) as a source of oils, particularly for soap manufacture. But the discovery of a chemical process by which coconut oil could be converted to a hard white fat not less edible, and more palatable than the oil (because of the elimination by this process of the strong flavour characteristic of the coconut) enormously increased the market for this tropical product by placing it in the category of substitutes for butter fat. Accordingly there was a tremendous increase in the demand for coconuts and a corresponding rise in price, so that coconut crops that had long been wasted in tropical lands began to be collected for the market and large plantations of coconut trees to be set out. The demand for coconuts continues to increase, so that apparently this kind of tropical agriculture will experience great expansion and prosperity. Moreover, as the coconut palm thrives best on or near the sea-coast, and in sandy soils, its cultivation promises to bring about a fringe of settlement along all tropical shores, hence the establishment of the bases from which the interior, more difficultly accessible, tropical lands may be penetrated and brought under control for other crops. A coconut grove has the further advantage of requiring comparatively little labour, once it is planted, and continues to bear for seventy to eighty years. Its product can also

be prepared for the market by machine and will then keep indefinitely; is, therefore, of the type that is particularly desirable in the extension of tropical development.

The success of the coconut led immediately to a conning of the characteristics and adaptability of a number of other tropical nuts to plantation culture for production of edible oils and fats. Among these the most promising seems to be the palmnut tree from the fruit of which both palm oil and palm-kernel oil are obtained. The fruit oil of the palmnut tree is extensively used in soap-making and the kernel yields a white fat which, like the coconut fat, is the basis of a vegetable butter. These products are being exported in greatly increased quantity each year from the equatorial areas of Africa. From Africa are also obtained shea nuts. These nut trees all yield crops in the abundance typical of tropical growths, and while the harvest is as yet largely derived from the wild stand, they also, and likewise the Brazil nut in South America, will no doubt soon be brought extensively into cultivation.

While these oil-yielding products are of much greater basic importance as foods and as the raw materials of industry than are tropical fruits, discussion of the possibilities of increasing the supply and variety of the latter is more likely to hold the interest of the average reader because wider availability of tropical fruits will give zest to many a meal that would otherwise be relatively uninviting. Chief among tropical fruits consumed in the middle latitudes today is the banana; and extension of banana production, as well as the problem of bringing into the Temperate Zone markets the less well-known varieties of tropical fruits, such as the pineapple, avocado, man-

goes, papaya, passion fruit, and custard apple, is primarily a matter of providing transportation facilities and devising adequate refrigeration and preserving methods.

The introduction of new varieties of tropical fruits into world commerce on a large scale requires, further, the education of the public taste to them and so creating a demand. In the tropical countries a considerable number of the fruits mentioned, and others even less well known, have, for long periods, been grown as a matter of custom in the dooryard of the householder; much like the farmer in the Temperate Zones maintains a kitchen garden. Because, accordingly, there has been no wide market for these fruits at home, no effort has been made to develop commercial plantations or to improve the species. Because, also, bush and tree fruits in considerable variety are available in the Temperate Zones, a tropical fruit must have special merit, of one kind or another, to gain a place in export commerce.

Indicative, however, of the possibilities in respect of tropical fruits is the history of the banana trade. In 1876 this fruit was exhibited as a curiosity at the Philadelphia Centennial Exposition. Two years later the imports of bananas into the United States were valued at one half million dollars, in 1900 at six million dollars, and in 1914 at sixteen and one-half million dollars. The major portion of this supply comes from the ring of lands that border the West Indian seas and from the islands of those seas, and owes its tremendous volume to the nearness of the sources to the great population centres in the east of the United States. The west coast of the United States gets a finer flavoured banana, the Chinese variety from

Hawaii; the same variety is shipped also to Europe from the Madeira, Cape Verde, and Canary Islands in limited quantities. The continental equatorial lands of Africa, large areas of which are well suited for banana cultivation, and from which Europe might secure the much greater bulk of bananas that its numerous population could consume, are too remote from the market to permit successful shipment of the fruit with the facilities now available. But fresh pineapples have been successfully carried from those areas to central Europe. As a canned product pineapples can be sent from their point of origin to any part of the world; suggesting the great, immediate possibilities of bringing other tropical fruits into the world markets as preserved products.

The varieties of tropical fruits are so numerous that they have not yet been completely catalogued, and of the particular qualities and adaptability to improvement under systematic cultivation of many of the known kinds very little information is at hand. So also with other tropical food products; they are so many that to characterize the known species, even briefly, would too much extend these pages.[1] Hence it must suffice, here, to indicate the significance only of some of these, merely to mention others, and to point out that many are omitted from the list.

The world demand for chocolate, the product of the cacao bean, is increasing tremendously. Aside from the

[1] See "Tropical America," E. V. Wilcox, New York, 1916, for an extensive listing of such products and a comprehensive bibliography of book and periodical sources. Also W. Popenoe, "Manual of Tropical and Subtropical Fruits," New York, 1920.

pleasure it gives as a confection and in milk chocolate, the cacao bean is also highly nutritious, and hence valuable as an energy food to a much greater degree than are fruits in general. In response to the increased demand, the supply of chocolate has in a recent five-year period (1914-1919) expanded by 50 per cent over that formerly available.[1]

It is significant, also, to note that the coconut palm will thrive on the salt sea-shore sands and is immune to any but hurricane winds; that banana plants can not endure brackish water, and hence must be planted away from coastal swamps and in not too windy spots; and that cacao must have shelter from all strong winds, also must usually have some shade, and yields a product of comparatively high value in small bulk, therefore is particularly suited for cultivation on interior alluvial plains. Thus all the vast basin of the Amazon is adapted to growing cacao, perhaps without completely removing the primeval forest. The palm-nut tree, already mentioned, is also adapted to interior locations. Accordingly these three or four plants by themselves constitute a series of growths that would serve to extend cultivation progressively and successively from the shore-line to the interior regions of equatorial lands that are as yet little exploited.

A great variety of plants that yield starchy foods flourish in the tropics. Among cereals, rice and the millets, which cost less labour than rice to produce, barley, and

[1] Cacao trees were first established as a plantation growth on the West African Gold Coast in 1905; in 1920 this region exported 200,000 tons of the beans, nearly one half the world's supply. *The West India Committee Circular*, Vol. XXXVI, No. 606, p. 541, Dec. 22, 1921.

seed-sorghum are of chief importance. A single sago tree yields 800 to 1200 pounds of sago. Cassava tubers are used like potatoes in the tropics, and furnish starch and tapioca for exportation. Other starchy tubers are the arrowroot, sweet potato, yam, and dasheen. The bread-fruit tree, also, is an important, as well as romantic, source of starchy food in the tropics. The vanilla bean, ginger, sarsaparilla, quinin, chicle for chewing-gum, and spices generally, are all produced in the equatorial wet lands. From the border, dryer zones are derived the citrus fruits, the olive, the almond, and the fig. Dates, under irrigation, flourish best in the hottest desert oases. From the arid, desert lands themselves are secured perfumes like frankincense and myrrh, articles of international commerce from classic antiquity. Although these perfumes, and similarly the chicle and quinin, are not foods, they are mentioned here because they are taken into the human system in some way. The enormous production of tobacco, coffee, and tea, in the moist belt between the tropical wet lands and the tropical arid lands, is likewise to be noted in this connection.

While the animal industry of the tropics, as directed to the production of meat, may attain a considerable importance in the future, the main interest in promoting its development at present is due to the need for draught animals. In either case expansion of this industry in the tropics depends primarily on there being available an adequate supply of forage and other, more concentrated, animal foods. Hence it is pertinent to note that the waste tops and leaves of the sugar cane are excellent green fodder and also when preserved in silos. Numerous varieties

of grasses flourish, some in the wet, some in the dry, districts of the tropics. Of special interest, however, is the great number of leguminous plants, particularly trees, that yield beans which, on grinding, afford a concentrated ration. The algaroba and carob beans are typical varieties.

The broad significance in world economy of tropical foods and the related products, so far enumerated, is well understood; but the tremendous bulk of the output, the multitudinous varieties, and the great future possibilities for expansion of production of these commodities, afforded through utilization of hitherto unexploited tropical areas, are factors not so fully appreciated. The same statement applies also to the greatest single raw material for industry derived from tropical lands; namely, rubber.

Specimens of rubber were sent to the French Academy of Sciences from Ecuador in 1763; in 1770 Priestley suggested use of this substance for erasing pencil marks from paper, hence the term "rubber." Macintosh invented the process of water-proofing fabrics with rubber in 1820 and Goodyear the vulcanizing of rubber in 1839. Vulcanizing adapted rubber to a great variety of uses and its consumption in quantity began with the discovery of that process. Since 1839 it has been found that several thousands of plants contain rubber, mostly tropical species, and of these about eighty different varieties have actually been used as commercial sources of rubber, and of these eighty varieties about fifteen different kinds afford the major part of the supply now available to industry. In 1900 practically all receipts were wild rubber and amounted to 54,000 tons; in 1918 the annual production

of rubber was 270,000 tons[1] and practically all the increase shown was from plantation rubber.

The rapidly growing demand for rubber results principally from its use in motor-vehicle tires, and 80 per cent of the, already enormous, production comes from tropical lands under cultivation. A large proportion of the areas in rubber plantations (practically all the Malayan[2]) may be presumed to have been primeval forest before 1900. The several varieties of cultivated trees may first be tapped at from three to five years of age and give increased yields of better rubber as they grow older. There were planted to rubber in 1916: in Malaya, 625,000 acres; in Java, 230,000 acres; in Sumatra, 160,000 acres; in Burma, 40,000 acres; in Borneo, 25,000 acres; in East Africa, 60,000 acres; in the Kamerun, 17,000 acres; and with smaller areas in other tropical countries the total area of rubber plantations amounted to 1,500,000 acres. While Pará rubber has sold for as much as $3.12 per pound (1910) it has been estimated that rubber can be profitably grown on existing plantations at from 25 to 30 cents per pound and the stable price is expected to hold around 50 to 60 cents. Here the economic rule applies that where supply about keeps up with demand, the most efficient producers can secure the price that must be paid to bring into the market the output of the most handicapped growers or gatherers.

Little argument is called for in regard to the probability

[1] H. C. Pearson, "Crude Rubber and Compounding Ingredients," p. 27, third edition, New York, 1918.

[2] R. H. Lock, "Rubber and Rubber Planting," p. 11, London and New York, 1913.

of increase in demand for rubber, in view of the continued expansion of the automobile industry, and synthetic rubber would need to be made very cheaply, as well as in great quantity, to compete successfully with plantation rubber at a cost price of, say, 20 cents per pound at the place of origin. Accordingly it may be expected that many more tropical acres will be reclaimed into rubber plantations. Rubber-producing plants, like sugar cane, moreover, are of the type that yield most where they flourish best, in this case under the equatorial sun and rains, as is indicated by the sites of the already established rubber plantations. Only the guayule shrub of northern Mexico, Texas, and New Mexico yields rubber in sufficient quantity to be of commercial importance in regions outside the central tropical belt. Citrus fruits, by contrast, as well as most temperate-land fruits, and cereals also, seem to give the finest quality and most abundant return when grown near the lower thermal limits of their range.

There are a variety of other tropical gums, some of them similar in nature to rubber, that are important for special purposes. Thus guttapercha is used for insulation of submarine cables, balata for machine beltings, and copal resins in varnishes. Carnauba wax is obtained from a Brazilian palm and is used in making polishing waxes and phonograph records, and shellac, used for similar purposes, is the exudation of scale insects that live on certain tropical trees. Camphor is a volatile oil obtained by steaming the wood and leaves of the camphor tree, and the product is largely used in the manufacture of celluloid and explosives. Formosa is the chief source, but

plantations have recently been established in Florida and Ceylon. Much more important than these, however, is chinawood oil, obtained from the nuts of a tree with the same name. This substance is used as a drying oil in varnishes and paints, and is imported into the United States to the extent of five million gallons annually. The trees grow from seed and begin bearing within three to five years, thrive well in a variety of soils, and on rough land, and need comparatively little moisture. Hence this, and the similar candlenut oil, would appear to be admirably adapted for more extensive cultivation in cool upland areas of the tropics, and particularly on the relatively arid lee slopes in the trade-wind belts.

Even if the cotton production of the United States, which amounts to 58 per cent of the world crop, be excluded (as coming from areas outside the tropics) the totals, in both bulk and value, of the fibre materials obtained in equatorial areas express in a general way the importance of the cultivation of fibre in tropical lands. Omitting the cotton produced in the United States, there remain some nine billion pounds of cotton, jute, silk, Manila hemp, sisal, and minor fibres, annually grown or produced in the tropics, and having a combined yearly value of approximately one billion dollars. Much tropical land and labour is therefore devoted to fibre production and some expansion of this industry may be expected in the future. But the tropical-fibre industry differs from most other tropical development in that the supply about equals the demand; there is no great pressure for larger quantities of these materials. The chief opportunities of the future in this field are, first, the possibility that a more

cheaply produced material may be found which can be substituted for some of the coarser fibres now used; and, second, that a higher quality, finer product, than any now known may be discovered, one that will meet the ever more exacting demands of certain branches of the textile industry. Long-fibre cottons are an example of what is required in the second group.

The tropical fibres are interesting in connection with the question of tropical development, furthermore, in that they come from so great a variety of plants; and that these plants grow in diverse soils and under climatic conditions that range from the extremely wet regions, where jute and Manila hemp are grown and quite arid places, where the agavas, from which sisal is obtained, are secured. It is said that there are about 750 different species of plants in the Philippines alone that will yield fibre; a statement that will convey some idea of the possibilities for future discoveries of cheaper and better sources. As an example of actual progress the recent development of "malva blanca" (*Urena lobata*) in Cuba may be cited.[1] A cheap fibre is needed to make up into the twenty million sugar sacks required annually in Cuba. Jute is now used for this purpose, at a (prewar) cost of 16 to 18 cents per sack. It was asserted (1915) that sacks made of the new fibre, malva blanca, can be profitably placed on the market at from 7 to 10 cents each. Similarly suggestive are the possibilities of Hawaiian olona, a plant that is said to yield a fibre of exceptional lightness, great strength, and

[1] G. Harris, "The West Indies as an Export Field," pp. 43-46, Special Agents' Series, No. 141, United States Department of Commerce, Washington, 1917.

remarkable resistance to decay and is, withal, free of resinous matter.[1]

Even more interesting, in view of the rapid depletion of Northern spruce forests and the shortage of paper pulp, are the vast possibilities of the tropics for supplying essential paper materials. A start has been made in this direction, as is indicated by a report,[2] in which it is demonstrated that a bamboo, (*Cana bojo*) will yield an easily prepared, fine book-paper stock and that the dense stands of this plant will replace themselves in three years, so that a comparatively small acreage will keep a mill of considerable size supplied with perennial cuttings.

Future utilization of the timber resources of the tropics may involve a far wider range of new adaptations than is probable in other fields of tropical development, because the wood resources of the equatorial silva are as yet so little known. While essentially pure stands of one kind of trees do occur in the tropical lands, the typical condition is of a forest growth in which almost innumerable species are found in a very small area, while two trees of the same kind may be separated by a considerable distance. Up to the present this has been a great handicap to lumbering in the tropical forests, for, while a few species (mahogany, ebony, teak, quebracho, cedar, etc.) have long been well known and highly prized for various purposes, others, possessing often quite unique qualities, have been consid-

[1] V. MacCaughey, "The Olona, Hawaii's Unexcelled Fibre Plant," *Science*, N. S.: 48, 236-238, Sept. 6, 1918. *Idem.*, "The Hawaiian Olona," *Science*, N. S.: 52, 240-241, Sept. 10, 1920.

[2] J. F. Boomer, "Paper Pulp Possibilities in the Philippines," *Daily Consular and Trade Reports*, pp. 22-24, United States Department of Commerce, Oct. 3, 1916.

ered useless because the particular purpose to which they could be put has not been known; or, if a peculiar wood-need existed in the industrial world, it was not known, perhaps, that some species of tropical growth would fill it adequately. Sometimes the clue has been immediately at hand but has been long overlooked. Such, for example, is the case of the Central and South American species of trees commonly designated as balsa, of which *Ochroma Lagopus* from Costa Rica is typical. The term "balsa," translated, means raft, and balsa trunks have long been used by the natives in the regions where the tree grows for raft construction, because of the very low specific gravity of this timber. The whole of the trunk wood is, volume for volume, only about one half as heavy as cork.[1] Balsa wood has only recently been exploited on a considerable scale for use in life-preservers. It has also been found to be admirably adapted for refrigerator linings, as it is, in addition to its lightness, a remarkably poor conductor of heat. Utilization of balsa depended, however, on the discovery of a process by which all the structure of the wood is filmed through with an extremely thin water-proof coating. The very rapid decay to which the original material is subject is completely arrested by this means. Similarly suggestive is the fact that the several varieties of balsa grow with the extraordinary rapidity that is typical of many tropical plant and tree species, so that logs a foot or more in diameter can be grown from seedlings in a few years' time. The balsa,

[1] "Balsa Wood." Reprint from *Bulletin American International Corporation*, Vol. II, No. 1, p. 10, Feb., 1919. American Balsa Co., New York City.

moreover, is readily cultivated and can be grown on worn-out banana lands. Considerable groves have already been set out.

There is no reason why many of the, as yet unappreciated, species of tropical woods may not in the future find an equally important place in industrial economy. The tropical forest, made up of thousands of species, will then be gradually displaced by groves and plantations of the desired sorts. The cultivation of the rubber, cacao, brazil nut, chinawood, camphor, and balsa trees is only a beginning in this direction. Further, as the qualities and usefulness of the different species become better known, it will become more and more feasible to lumber the primeval tropical forests areally, instead of laboriously searching out and retrieving single trees, situated far apart, as has long been done in the case of mahogany, for example. The different woods can then be shipped as a mixed cargo to industrial centres and there sorted out and sold according to kind. When lumbering in the tropics attains this stage the expense of clearing tropical areas for plantation purposes will also be lowered greatly, for it will then no longer be necessary to pursue the tactics recommended in a recent manual on rubber planting;[1] "The trees on the land seldom pay for working, and much fine timber is thus wasted, only so much being saved as is required for buildings on the estate." The British author of this manual also suggests that the cost of clearing forest areas in the tropics could be much reduced by introducing the stump-pulling machinery so effectively

[1] R. H. Lock, "Rubber and Rubber Planting," p. 98, London and New York, 1913.

utilized in the swamp lands of North America. It is true that in opening up land for banana plantations, and for some other tropical agriculture, only the roughest sort of slashing and clearing is attempted; thus the trunks of large trees are allowed to rot where they fall. This practice will not serve, however, when it is intended to set out an area to sugar cane. Even the very perfunctory kind of clearing described is sometimes attended by unusual difficulties when done by hand, as, for example, in the West Indies. The manchineel tree, which is there encountered, spatters the workman, who attempts to cut it down, with a poisonous juice; a liquid that causes painful blisters when it comes in contact with the human skin. But even this tree gives very fine lumber when its wood has been thoroughly seasoned.

It will be realized, from this account, that the resources of the tropical forests are comparatively little known and only slightly exploited. But the mineral possibilities of the equatorial regions may be thought of as even less completely prospected. It is true that the tropics yield immense quantities of certain, rather unique, mineral substances; thus asphalt, tin, nickel and nitrates. A large part of the world's supply of those particular materials comes from tropical areas. It is interesting to note, also, how the tropics have dominated, from ancient days until now, in the furnishing of precious stones; a fact that did much to gain for the Indies their reputation of possessing fabulous wealth. But this enumeration of the mineral production of the tropics while impressive, does not bring out the fact that the substances named are either of the class which has small bulk and high value or, if they are

bulky materials, are such which may be had from sources close by the sea where ocean transportation is immediately available to carry them to a distant market. With the exception of products like asphalt and oil it is unlikely that the alluvial and coastal lowlands of the equatorial regions will yield large quantities of industrially useful minerals. But it may reasonably be expected that the vast ranges of mountain country in tropical lands, areas, many of them, that have scarcely been visited, will be found to contain important deposits of a great variety of metallic ores. This has already proved to be true in the few places where tropical mountains have been accessible, as, for example, in Brazil.

Development of tropical mineral resources, over and above the primitive workings by natives, and the near-sea exploitation of the modern type, will follow upon effective interior transportation, and perhaps determine the routes of highways and railroads. Such facilities are, however, especially difficult to establish in the tropics. Climatic and topographic factors operate against both the ready construction and the maintenance of either roads or railroads at a reasonable capital expenditure. The equatorial lowlands are continually moist and soft, suitable road metal for durable building or ballast is commonly not available near at hand; landslides, even on slopes comparatively gentle, occur frequently because of the deep mass of wet soil, especially when the natural equilibrium of this earth is disturbed by making cuts for a grade. Rails rust and ties rot quickly in the steaming atmosphere, and the rank-growing, tropical vegetation is only kept down at the expense of much effort. Tropical

rivers, all, are peculiarly subject to flood; in those areas where wet and dry seasons alternate the streams have especially great rises during the season of rains. As railroad lines, particularly, must follow the valley grades it will readily be understood that these floods do not facilitate upkeep. On the other hand, if a desert area needs to be crossed, great difficulty is encountered in securing adequate supplies of water; and the tracks in such regions may be buried under drifting sand.

The rain-forest areas of the tropics have many rivers of large volume, the most notable of these being the Congo and the Amazon. It might be thought, therefore, that the use of water routes in those areas would obviate the necessity of overland highways, and, indeed, the rain-forest rivers are used for most of the long-distance transportation of bulky materials in quantity that is done in the areas of their basins; though human porterage is still employed for much of the initial assembling of commodities. But the important rain-forest rivers are, unfortunately, almost all interrupted by rapids and falls which obstruct navigation. Nearly all the area of tropical Africa is an upland, the lowland coastal plain of the continent is very narrow, behind it the rivers descend from the highlands in great cataracts; Africa has so long remained the Dark Continent because of the difficulty that these breaks in river navigation interpose to access of commerce to the interior areas. The headwaters of the Amazon and its tributaries have the same defect; rapids and falls are encountered as the mountain regions in the west of South America, and their mineral stores, are approached.

In respect of local transportation, the chief handicap is the lack of an adequate number and of efficient beasts of burden. Horses do not thrive in the tropics, the mule resists the conditions only moderately well, the water buffalo, which is adapted to the equatorial setting, is a very sluggish beast. So far as is now known both tropical South America and Africa lack coal deposits of any importance; hence it is not feasible to substitute steam power generally for animal traction.

Aside from the difficulty of financing railway construction, in advance of the development that would supply the volume of traffic that is necessary for profitable operation, it is evident that the transportation of bulky goods in the tropical areas is quite variously handicapped otherwise. Discoveries in quantity of fuel oil may, however, in part offset the coal shortage. But there is much greater promise that the very falls and rapids which now block river traffic will in the future be the sources from which the vast energy required for complete conquest of the tropics will be secured. Electrical transmission of power is progressively being made effective over longer radii from the generating station, and it may not be long hence when electrified railways will penetrate interior Africa and surmount the tropical Andes. The initial steps have already been taken. In Brazil, particularly, water power is now developed in a quite extensive way, and its use, in that country, is in prospect of great expansion in the near future. The enormous water-power potentialities of the tropics are assets of no mean importance to the world.

CHAPTER IX

INHERITING THE EARTH—THE CONQUEST OF THE TROPICS

Part II—The Human Factor

THE summary of tropical resources contained in the preceding chapter is admittedly incomplete, but, even so, suffices to create the impression that opportunities of the most varied kind await the advent of enterprising individuals in tropical regions. While the difficulties of the transportation problem appear to be a very serious obstacle to attainment of complete control of the tropics, they are not insuperable, as is attested by what has been accomplished in the way of railroad construction in India, Burma, the Straits Settlements, and in the less densely populated Central American states. It is also evident that the variety of commodities procurable in the tropics is much wider than is generally appreciated and that they comprise, in very large measure, staple foods and raw materials, fundamentally essential to industry, and that for most of them a large excess of demand over supply exists. The tropics, further, are a reservoir from which many new substances to supply old needs may in the future be secured. In so far as reciprocal needs and resources are concerned, the densely settled, industrial lands of the Temperate Zones and the tropical regions are the geographically different areas of the earth, and, on this basis, the current of north-south trade, already large,

should in a very short time become preponderant, and the complete conquest of the tropics achieved.

But human adaptations to the tropical environment have been almost completely omitted from the discussion up to this point, yet it is on this factor that the future of the tropics depends more than on any other. The cultural advancement of the northern nationalities and their south-temperate, essentially colonial progeny has resulted in great part because the climate and the resources of those lands provided both the geographic necessity and the opportunity for work; while at the same time its elements of weather permitted of persistent toil by the white race. Out of these conditions manifold division of labour arose, and also industrial and national organization, with democratic government and the emergence of the individual. History is the record of painful struggle, on the part of the Western peoples, from the time of their sub-tropical origin, to achieve this adjustment to the environment; reading history evokes the feeling that, again and again, men seem obstinately to have turned their backs on the natural and geographic way to inherit, in its fulness, the legacy of the temperate lands of the earth. Even now the international problem has not been solved, both the peoples and their statesmen will not perceive that nations can endure and thrive most on a basis of international amity, and of free exchange of what each produces best. The main problem has nevertheless been solved; geographically the nations of the temperate lands can and should endure, and their relations with each other become more stable as the backward groups adopt and develop machine industry, and are no longer a field for

exploitation by individuals and groups from organizations that have made greater progress in capital accumulation.

But it does not follow from this that the national organization and institutions developed in the northern, temperate lands will serve as the basis on which the tropics may also be made to yield their resources in fullest measure for the benefit of mankind as a united and cooperative whole. While the climate of the tropics, at first thought, and even after analysis, seems extremely monotonous because the steady heat and uniformity of precipitation conditions in any given place is in so great contrast to the rapid and unpredictable diurnal changes in temperature and storminess, typical of the middle latitudes, yet the, apparently, minor differences of the tropical climates, because of their permanence, are of greater significance, with reference both to production of commodities and to human life, than are the annually-variable extremes of the, so called, Temperate Zones. Considerable portions of the tropical areas are level uplands, with summit elevation sufficiently great to bring about an appreciable reduction in the steady temperatures, so that, while these tropical temperatures average 80 degrees F. at sea level; Bogotá, Colombia, South America, not five degrees of latitude north of the equator, for example, has an average daily temperature of 60 degrees F. the year round. It is immediately patent that while 20 degrees F. temperature difference between one day and the next is a matter of little consequence in the Temperate Zones, the same difference, in the tropics, because of its persistence, creates a totally different environment and different resources.

At a mean annual temperature of 60 degrees F. to 70 degrees F., even though the steady uniformity typical of tropical climate prevails, that is, on the tropical uplands where these climatic elements are encountered, it might seem entirely feasible for the white race to engage effectively and continuously in physical effort. Perhaps as acclimatization by groups and generations is slowly achieved it may indeed be possible that such areas will eventually be developed by white labour. The lower average temperature of the tropical plateaus undoubtedly does much to ameliorate the debilitating effects of the high humidities typical of the equatorial latitudes. In fact the uniform, optimum level of the temperature on tropical uplands is, for a limited period, actually stimulating to the newcomer from a climate of greater extremes. Much of the danger from tropical diseases is also eliminated by the altitudinal effects on temperature.[1] The parasitic, tropical, malarial, and yellow fevers, and also the hookworm infections, in some phase or other of their transmission from host to host, are apparently unable to survive the slightly greater cold of the uplands. Expectation, based on these facts, that the white occupation of the tropics can proceed readily from the uplands should not, however, be too optimistic, for there remain to be taken into account factors that exert a not inconsiderable deterring force to a programme so outlined.

In the first place, the lower temperatures of the tropical

[1] See Sir P. Manson, "Tropical Diseases," London, 1914, fifth edition. Introduction, pp. xvii-xxiv, 102, etc. Also H. E. Gregory, A. G. Keller, and A. L. Bishop, "Physical and Commercial Geography," pp. 162-163, Boston, 1910.

uplands are no less deadly monotonous than are the higher degrees of steady heat experienced in the lowlands. Huntington,[1] who has made a detailed study of the effects of climatic variability and uniformity on mental and physical activity, is convinced that the steady uniformity of tropical temperatures, independent of their degree, and independent of other factors, is a condition that of itself makes development of tropical lands difficult, if not impossible, for a resident, white population. Its effect is to induce nervous breakdown in the white settler. Again, an altitude of from 3000 to 5000 feet is required to effect a sufficient lowering of the steady tropical temperature to afford relief from the heat. But, at so much of an elevation above sea level, the rarefied air very considerably incapacitates animal life for physical effort. While the altitudinal distribution of population is in large part determined by considerations of transportation and communication, the effect of elevation on human physiology is probably also significant in determining that 95 per cent of the population of the United States resides at levels below 3000 feet.

It is, nevertheless, possible that tropical uplands may be susceptible to development by white people, and under the same kind of national and industrial organization that prevails in the Western civilization of the Temperate Zones. The tropical Latin-American states are struggling to achieve that end. Most of these republics, and notably Brazil, are endeavouring to induce white immigrants to occupy and develop the upland areas of their domains.

[1] E. Huntington, "Civilization and Climate," p. 136, New Haven, 1915.

But it should be noted that, however important the commodities exported by groups of whites resident on tropical uplands may become in international trade, those products will not be the characteristic tropical varieties on which the north and south exchange of goods that is to dominate overseas commerce in the future will be based.

European domestic cattle can thrive under the temperature conditions of the tropical plateau. The year-round supply of green vegetation, the fact that no elaborate provision for sheltering the animals needs to be made, and that raising cattle under those conditions entails no great expenditure of effort on the part of man, are all factors that should promote the extension of stock-keeping, and make it a profitable pursuit on the tropical uplands. But cattle are not a tropical product, and, however much production of coffee, tea, and tobacco on tropical uplands may supplement the supply of those substances derived from other sources, those commodities are not strictly tropical growths.

If, however, the tropical uplands do become the seat of a considerable white population, it is possible that the future development of the tropical lowlands may be directed from the tropical uplands. Accordingly the national organization and institutional adoptions of the future upland groups may have a considerable influence on the nature of the development of tropical lowlands, and the essential problem of the conquest of the tropics is to bring about a complete and rational utilization of the equatorial lowlands.

While there may be occasion for difference of opinion, as based on the known facts, in regard to the possibility

that whites in numbers will be permanent settlers of the tropical uplands in the near future, it seems to be quite certainly established that, except by a very slow and difficult evolutionary process, acclimatization of the white race to tropical lowlands is impossible. Taylor[1] has made a very careful study of this problem, as it affects Australia (where a settled policy to exclude all but white immigrants is in force), and concludes that the lowland, tropical areas of that continent can be occupied by whites only as a result of an exceedingly slow migration from cooler to warmer regions; a matter of many generations. The moist lowlands are especially difficult for white women, there is a high mortality in childbirth, and infant mortality is also very high. Thus a vigorous, indigenous posterity can not be bred. As Huntington (*op. cit. supra,* pp. 14-15, 27-33) points out, the white race has degenerated even in the Bahamas, islands which lie north of the Tropic of Cancer, have a balmy, rather than an oppressive, climate; and are unaffected by such diseases as that due to the hookworm. The Bahamas were settled by Loyalists from the Southern states at the time of the American Revolution, and by colonists from Great Britain; vigorous stock in each case. In contrast with conditions in India and other tropical areas the English settlers of the Bahamas engaged in the actual cultivation of the soil. Now, after some three to five generations of occupancy, the white farmers of the Bahamas, descendants of these good original stocks are, on the average, "poor whites," very little superior to their negro competitors as

[1] Griffith Taylor, "The Settlement of Tropical Australia," *Geographical Review,* Vol. VIII, pp. 84-115, 1919.

a human type. Physical weakness, chronic listlessness, irritability, and mental inertness are main characteristics of the white Bahamans. If, however, individual white Bahamans, of the existing generation, remove to a more bracing, middle-zones climate, they seem to recover, almost immediately, their racial inheritance of both energy and initiative in this, the ancestral, environment. The poor whites of Barbados are descendants of Irish and Scottish political prisoners, whose ancestors were sold into slavery by Cromwell, and brutally treated. A few descendants of these slaves later rose to be planters, but most of them degenerated to a status as low as that of the negro labourers; the victims of poverty, tropical listlessness, disease, and intermarriage. Not many of these now remain; they are mostly fishermen and cattle keepers. Their children are being helped to emigrate to the temperate latitudes, where it is found that they recover the ancestral vitality and are successful as mechanics and in other pursuits that require expenditure of more than average energy.

Assuming that the immediate and progressive conquest of the tropical lowlands is a world necessity, it would appear that this end can not be achieved in the near future through application of the manual labour of whites. In considering any other solution it must first be realized that the fundamental difficulty that conditions the expansion of trade between the naturally complementary areas of the temperate lands and the tropics is the fact that, while the temperate-land peoples are aware of their urgent need of tropical materials, the native inhabitants of the tropics generally are under no such compulsion. Either the

tropical natives do not actually need what the temperate lands offer in exchange, or, if they could utilize these things to advantage, they have not yet awakened to that knowledge. If the white race requires a greater volume of tropical commodities, yet is itself unable to secure these, even where the areas of their growth or occurrence are so sparsely settled by natives as to be open to alien occupancy, then the only alternative is to secure the required development by stimulating or forcing production by those races which are competent to do the necessary work.

It must be confessed that, up to the present, Western civilization has secured its tropical commodities for the most part at the expense of the moiling labour of the coloured races. This has not been altogether a matter of imposed slavery, whether so designated or not, for much of the labour performed by the coloured races, though involuntary (in that it has not resulted from the personal initiative of the individuals concerned) has nevertheless been compelled by necessities, either natural or tribal, not due to white, or recently, Japanese, domination.

In many parts of the moister rain-forest regions, and over practically all of the jungle and savanna regions of the tropics, life is relatively easy for the native, because Nature has provided ample food supply at little labour cost, and the need for shelter and clothing is very slightly felt, if at all. The coconut palm flourishes along all tropical sea-coasts and one of its oily fruits will nourish a man for a day. Farther inland, bananas, plantains, and the breadfruit tree yield abundantly; bananas the year round, the breadfruit for some eight months; and a dozen

bananas a day are adequate food for an able-bodied man. In a recent paper [1] on the Belgian Congo it is stated that the oil palm (*Elæis guineënsis*) exists by tens of millions of trees, in clusters, groves, and forests, over nearly all the vast interior area of the colony; that it yields a supply of fruit throughout the year, and that the natives have from time immemorial depended on this tree for food and palm wine; the chief supplement to that ration being the sugar cane which is cultivated in little plots about each native village.

But it will readily be understood that, even with so easy and ample supplies of certain natural products, as the above citations suggest are available, human food cravings are not completely satisfied. At best the diet that these fruits and nuts provide is monotonous and innutritious, particularly in that it consists too much of bulky, starchy stuffs. Sumner,[2] indeed, is of the opinion that cannibalism originated in defects of the food supply, specifically from the lack of meat; and supports his contention with evidence from many sources. Cannibalism, for example, seems to have been especially prevalent in the Congo basin, and in just that area where the oil palm is so abundant. Salt, like meat, is seldom available in the wet, tropical lands, and failure to secure this mineral condiment is held to be one of the main provocatives of cannibalism; because when salt is not available the craving for meat reaches the intensity of a passion, which

[1] M. Horn, "The Economic Development of the Belgian Congo," *Journal of the Royal Society of Arts*, Vol. LXV, 1917, pp. 370, 385.

[2] W. G. Sumner, "Folkways," p. 329, *et ff.*, Boston, 1907.

can be most easily gratified by human sacrifice. Horn (*op. cit. supra*, p. 374) points out that the natives of the Congo regions will be made much more efficient and healthy "when they are taught to increase their supplies of vegetable and animal food, and enabled to add to their diet a sufficiency of salt." Reinsch [1] emphasizes the fact that one of the most important sources of revenue in India is the tax on salt, and that a decrease in the rate of the salt tax actually augmented the total of the tax return, because a marked increase in consumption was brought about by this slight difference in cost. Because of the insistent demand, and the possibility thereby offered of imposing a tax on all the native population, the sale of salt has been made a government monopoly in the Dutch East Indies and in Indo-China, as well as in India.

On the other hand, there are many tropical areas where free food, even of a kind, is altogether unobtainable, and the total product of arduous native cultivation barely suffices to ward off starvation. These are the regions where a dense and increasing population, with very low standards of living, is continually pressing on subsistence, notoriously true of Java, India, and parts of China and the Philippines. Thus five sixths of the cultivated area in India is devoted to food production, leaving only one sixth to be devoted to the production of industrial raw materials. Nevertheless rice, the staple crop (except in Burma), is not the main food of the common people; they must be content to subsist on the more prolific, and

[1] Paul S. Reinsch, "Colonial Administration," pp. 113, 119, 121, New York, 1905.

coarser, pulse and millet. In Cebú and Siquijor, of the Philippines, Waters [1] found so great overpopulation that the farmers were trying to grow two or three crops of corn on the same land each year, but were securing only, from all three cultivations, a total yield that would be pitiably small for one crop. Part of the difficulties of the Filipino farmers are due, unquestionably, to ineffective, primitive, and actually harmful methods of cultivation; but improvement of these methods does not remedy the situation, for, as the British have found in India, any increase in the food supply seems only to stimulate population growth to such a degree that conditions remain as precarious as before.

Even the New World tropics are not free from this menace, as is indicated by Governor Yager's [2] account of overcrowded Porto Rico. Four fifths of the area of Porto Rico is mountainous, much of the land comprising slopes so steep as to be almost uncultivable. Nevertheless the island has a density of population approaching 350 to the square mile, engaged almost exclusively in agricultural pursuits, and distributed almost uniformly over all the territory. In the thirty years following 1887, the increase in population in Porto Rico, all due to new births, was always over one per cent annually, in 1915-16 it had attained two per cent, the rise being due to increased production made possible by the more stable conditions. There has, however, been no corresponding improvement

[1] H. J. Waters, "The Development of the Philippine Islands, *Geographical Review*, Vol. V, p. 288, 1918.

[2] A. Yager, "Fundamental Social and Political Problems of Porto Rico," abstracted in *Geographical Review*, Vol. I, pp. 211-212, 1916.

in living conditions following the American occupation. The people live in mere hovels destitute of furniture, and each hut is crowded exceedingly with human occupants. Food consists of rice, codfish, and beans, supplemented by native fruits. Wages barely suffice to maintain existence. The greatly enlarged opportunities for employment in Porto Rico, due to expansion of commerce in recent years, have, in other words, resulted merely in increased numbers; there has been no change in the standards of living.

The foregoing analysis of conditions in various tropical regions indicates, quite clearly, it would seem, that where the natural resources of such areas afford a free food supply the native population remains sparse and ill-nourished, partly because of the defects in the food supply itself, partly because of the natural checks on population increase that are part of the environment. Deaths from disease, high infant mortality, tribal warfare and slavery, famines, due to the occasional failure of even natural supplies of food, as by destruction from hurricanes, and deaths due to animal enemies, taken together, reach enormous totals. In 1904, for example, some 25,000 people are said to have been killed by snakes and wild beasts in agricultural India, and, large as it is, this figure but suggests how much greater must be the percentage of deaths from similar causes among the wild tribes of the forested regions of the tropics, from which no statistical returns are available.

Where and when, however, the primeval-forest and jungle growth has been removed and a culture-provision of food makes life on the average more certain, the effect seems almost always to be that the numbers of the coloured

races immediately expand up to the new subsistence limit. It may be that, near by the congested areas, there are sparsely peopled, undeveloped lands that, with similar culture, could readily be made to supply the wants of the expanding numbers, at least for a time, but the natives have usually neither the means for removal to the new areas nor any desire to undertake the work of the pioneer on their own initiative. There are in India, China, Japan, the Philippines, and in Java sparsely populated areas; but there is little or no emigration to these, from the intensively cultivated, most congested regions, by the natives of those countries.

These several reactions between tropical environment, race, culture, and numbers are very strikingly illustrated by conditions within the relatively narrow compass of the West Indies, as set forth in a recent report by observers [1] who, presumably, did not have in mind any bearing the facts they secured might have on a discussion such as this, and were, therefore, altogether unbiassed in their statements. From Cuba, only, is it reported that labour is well paid; $15 to $25 per month, and keep, for farm labour, $1.20 to $1.30 per day (of nine hours) for unskilled labour in the towns. The Cuban labourers are in the majority white immigrants from Spain. By serving only a comparatively few years in Cuba as day labourers these Mediterranean whites accumulate enough capital either to buy or rent land of their own or to become artisans or small tradesmen. It is noteworthy, also, that, while

[1] Gerard Harris (and others), "The West Indies as an Export Field," United States Department of Commerce, Special Agents' Series, No. 141, Washington, 1917.

Cuba shared equally with Porto Rico in the prosperity recently enjoyed by the West Indies, this change did not bring about a notable expansion of the Cuban population. Rather it created a labour shortage, and negroes from Jamaica and other West Indian islands were brought into Cuba to help out during the cane-grinding season.

In Porto Rico, where, as it has been pointed out, over-population is a pressing problem, the average *jibaros* and *peones,* farm and city labourers, respectively, are of indeterminate negroid origin, showing traces of Indian, negro, and Spanish blood. In contrast with the white labourers of Cuba, these Porto Ricans got (1916, no change in 1922) 60 cents to 90 cents a day, live in palm-thatched hovels, and very few of them rent or own land.

In Jamaica, as in Porto Rico, the population is rapidly increasing, and over 90 per cent of the total number of inhabitants consists of negroes, East Indians, and Chinese. No figures are given on the wage rate, but labour is abundant, and so cheap that the mahogany and other hard cabinet woods that constitute an important item in the island's exports are sawed into boards by hand, "as has been done since the first settlement of Jamaica." The people of Haiti are almost entirely negroes, and in 1916 were very willing to work for 20 cents a day. The population density is 200 to the square mile.

The Dominicans of the Dominican Republic, which extends over two thirds of the island of Haiti, are also negroes and, except that aliens have been permitted to hold land and develop sugar production in San Domingo, conditions are very similar to those that obtain in Haiti. The more intensive culture resulting from the presence of

the sugar estates has provided a slight money income from sales of cane, and this income, with meagre cultivation of bananas, plantains, papayas, squashes, melons, and sweet potatoes, raising of chickens and goats, gives the native Dominican ample sustenance; especially as he can supplement such supplies with coconuts, wild honey, and a variety of other fruits from the woodland areas near his hut. In San Domingo the food ration is, therefore, fairly well balanced, plenty of good land is available by squatter possession, no such thing as clear title to land is obtainable, and population pressure has not yet made itself felt. The native Dominican is, accordingly, unwilling to work for low wages, and high wages are not obtainable, because the sugar planters import labourers from Porto Rico, Barbados, and St. Thomas.

In British St. Kitts the negro population of a density of 400 to the square mile work for the sugar planters at 60 cents per day, and almost exactly the same relations apply in French Martinique. Barbados has a population of 900 (1922) to the square mile and is probably the most densely peopled area in the world, in the sense of complete utilization of the island as a naturally defined geographic unit. Portions of Japan and China have denser populations, but contiguous territory in those countries is only sparsely inhabited. Over ten thousand of the Barbados negroes own parcels of land not over five acres in extent, and many more rent plots similarly small.[1]

[1] But as the whole island comprises only 106,560 acres, of which 74,000 acres are cultivable and 64,000 acres are cultivated, and as perhaps 80 per cent. of the land is in sugar estates, each one 200 acres or more in extent, owned by whites, it follows that nine-tenths

On these little tracts each family grows most of its food and if there is any surplus space it is devoted to a money crop of cane or cotton. As nearly all the area of the island is under cultivation, the dense population is very evenly distributed. There are no crown or public lands for sale or settlement in Barbados. Wages are low (24 to 36 cents per day for able-bodied farm labourers in 1922), a previously existing surplus of population was compelled to seek employment outside the island, but, while conditions in this respect are the same as those which confront the Chinese coolie, no such squalor and misery seem to prevail in Barbados as are found in the crowded parts of China. On the other hand, in contrast with the indolent San Dominican negroes, who have at their disposal products in considerable quantity derived from free lands, the Barbadians are remarkably thrifty and saving.

A summary of the conditions in the West Indies brings out some significant relations. In Cuba, the northernmost of the large islands, where the trade winds blow steadily for 300 days of the year, it is evidently quite possible for white people from the Mediterranean countries, Spaniards, and probably also Italians and Greeks, to live and work and maintain a high standard of existence; though Englishmen in the Bahamas, lying farther to the north, have apparently deteriorated, after being permanently resident there for only a few generations. In Porto Rico,

of the negro peasant-holders probably do not own more than half an acre. Moreover the land held and rented by the peasants is for the most part the rough land at the top of and below steep cliffs and on steep slopes. Hence the Barbadian negro has, after all, only a very slight hold on the soil of the island.

where the mean temperature is no higher, though the rainfall is greater than in Cuba, the negroid population, deprived of ownership or possession of land, has increased and multiplied to such an extent that it is compelled to live in squalor and to work for a pittance. In Barbados, where the heat is somewhat greater, but where the rainfall is no higher than in Porto Rico, a very crowded, land-owning and tenementary, negro peasantry lives in comparative decency and subsists thus on very low money income. Only 30 per cent of the country negroes are employed the year round, the other 70 per cent receive a regular money income only during the three months of the crop season.

In all four of these areas a large proportion of the land has been brought under cultivation. Moreover, in them, sanitation has eliminated some of the dangers from tropical disease. A single, pure, water supply, only, has worked wonders in Barbados; though infant mortality and the incidence of typhoid are still high among the negroes. Even in Porto Rico, where 90 per cent of the labouring population was not long since infected with hookworm (*uncinaria*), much has already (1916) been accomplished toward a complete eradication of this vitality-sapping pest, and deaths from malaria and yellow fever in Porto Rico have been reduced to one half what they were only a few years ago. In Haiti, Martinique, and, in much lesser degree, in Jamaica, in all of which considerable areas of woodland remain, relatively dense, land-holding populations live indolent, shiftless lives, amid unkempt surroundings, because they can supplement their cultivation with wild products. Sanitation is poor,

and a high death-rate, especially of infants, tends to keep down the numbers of the population.

A recital of land and labour relations as found elsewhere in the tropical regions would reveal enough correspondence in conditions with those that obtain in the West Indies to warrant acceptance of the latter as typifying the general situation. It may be concluded, therefore, that the white race, in general, is incapable of continued physical effort and propagation of kind in tropical lands, though South Europeans may perhaps be able to occupy permanently, and to develop, the climatically pleasant, though enervating, border areas and uplands. The natives of the tropics, with the possible exception of the American Indian tribes in Central and South America, seem, on the other hand, to be able to sustain continuous toil under the most difficult tropical conditions without harm to health or strength, though, comparatively, their endurance varies greatly. The Chinese coolie has earned the reputation of being conspicuously the most efficient tropical worker, probably because he represents a survival of the fittest; is the hardy and adapted offspring of generations of ancestors habituated to arduous toil under tropical conditions. Modern hygiene has proved itself entirely competent to eradicate endemic tropical disease, and the introduction of the methods of sanitation it prescribes has resulted in very greatly reducing the infant mortality among the native peoples, as well as in making the native adult physically more efficient by relieving him of the devitalizing, parasitic, hookworm type of infections. At the same time this elimination of tropical disease has made it possible for the white man to *exist* for considerable periods

in the steady warm regions without other harm than a general debilitation of his normal energies. The conquest of the tropics need not be deferred because competent workers are lacking; the problems are, rather, for whom shall the task be done and under what conditions?

Experience in the West Indies, India, and elsewhere seems to show that wherever the removal of the wild tropical growth is not too difficult, as in the jungle and savanna lands, development of a culture system (whether by origination among the natives themselves or introduced) accompanied by possession of the land, enables the inhabitants of such areas to round out their food needs with comparatively little effort, and that, once this has been accomplished, the native has little or no incentive for further expenditure of energy. The conditions then favour the continued existence of an indolent population, growing slowly more numerous, while supplementing the products of its small agriculture with the natural fruits of the adjacent wild. Over-rapid increase in population, with consequent crowding and necessity for more strenuous effort, is prevented, in general, by high infant mortality due to endemic disease, numerous accidental deaths of adults, occasional famines, and intertribal warfare.

If the normally high death-rate of peoples so circumstanced is greatly reduced by sanitation, or if, despite the natural handicaps of disease, a slow increase in numbers takes place, population will in time begin to press on food supply. Then more of the forest land will need to be cleared, more dependence placed on cultivation, and more strenuous and steady labour required of the inhabitants

to maintain existence. If the natives continue in the possession of their lands while this change is taking place the end result should be a thrifty and industrious, dense population requiring all the land available for producing the food necessary for its own subsistence. This is essentially the condition of the congested parts of China. On the other hand, if the lands where these dense populations exist are to any considerable extent appropriated for plantation purposes the native inhabitants are pauperized, as is true of Porto Rico and in large measure of India also, or are forced to emigrate, as from Barbados.

From the point of view of the peoples of the Temperate Zones, who desire the exploitation of the tropics in order that they may, with tropical produce, supplement their own food supplies and acquire, further, vast quantities of industrial raw materials from the equatorial regions by plantation culture, these relations constitute the most serious problem of the conquest of the tropics. Let alone, or helped by modern sanitation, and instruction directed to the improvement of their agriculture, the natives tend to increase and multiply so rapidly as to exclude the possibility of devoting any remainder of land to production of a surplus of food or other commodities for export. If deprived of their lands, the natives tend to be pauperized or enslaved, as in the case of the Dutch culture of Java. That the native chiefs compelled the same kind of toil before the coming of the whites does not alter the case. Seemingly only disagreeable alternatives confront the temperate-land peoples: to permit, even to help, teeming hordes of natives with standards of living reduced to the lowest essentials for existence, to occupy the tropical lands

to the complete exclusion of all other production, or, by one expedient or the other, including actual slavery, to compel the labour of the natives in plantation culture.

The important, even dominant, place that sexual pleasure has in the life of primitive peoples is not generally recognized; primarily because the subject is one that has so many disgusting aspects that it is generally avoided by Western observers when they write on native customs. However barren of all else that provides an incentive for continued existence the most abject human lives may be, there nevertheless remains the pursual and the anticipation of renewed sexual gratification to provide a thrill. The Eskimo in his igloo, the tropical savage in his grass hut, the Chinese coolie, and the lower strata of society in Western nations, alike depend on such indulgence as their one great relaxation and often, indeed, motive for existence. Particularly does this apply to the tropical native so situated that food is easily obtained. Aside from intertribal warfare, hunting adventures, alcoholic intoxication, satisfaction of small vanities of personal adornment and simple games, the sexual lure is for the males of such tribes the chief content and expectation of pleasurable activity. The dancing which is so important a feature in savage tribal life is practised, for the most part, either to rouse up a war frenzy, when some marauding expedition is afoot, or to inflame sexual desires. Referring to the Arvemba tribe of northern Rhodesia, Africa, Goulds-bury and Sheane[1] remark that the older native men, as soon as they feel at home with the mission doctor, pester

[1] C. Gouldsbury, and H. Sheane, "The Great Plateau of Northern Rhodesia," p. 141, London, 1911.

him for aphrodisiacs; a circumstance which may be regarded as indicative of the normal mental attitude of the African negro. In consequence of the general prevalence of similar abnormal sexuality the institution of the child-wife is almost universal with tropical peoples, for it serves the various purposes of relieving the parents of the care of the girl and of bringing them a dowry; and of insuring the husband some degree of exclusiveness of possession. Hence, also, reproduction begins at a very early age and even monogamous families can be large.

It does not, however, follow that tropical peoples are under all circumstances prolific. Their very sexual excesses may make them impotent, and it is, perhaps, on this account that considerable pride is often exhibited in regard to size of the family and considerable affection displayed for the offspring. High infant mortality also tends to cut down numbers. Where food from natural resources is not easily had and is not plentiful, and where, in consequence, the natives are put under the necessity of devoting a considerable portion of their time and energies to productive effort, as is also the case when population becomes sufficiently dense in any area, sexual excesses will be curtailed, and the elimination of debauchery may bring about an actual increase in fecundity. Thus, presumably, the numerous progeny of the hard-working Chinese, Japanese, and East Indians may be accounted for; and where, in combination with the higher birth-rate, infant deaths are reduced through introduction of modern sanitation, great increases in the population, as in the case of the negroes of Porto Rico, are encountered.

Another factor of considerable significance in this prob-

lem of numbers and land in the tropical regions is the question of the competitive ability of the various coloured races and peoples. It has been the general rule in the progressive, migratory occupation of the world's lands that, wherever a more advanced, capable people, willing to labour, have come into contact with a less efficient, indigenous group, the latter have been both displaced and caused to diminish in numbers. The retreat of the Indians before the whites in North America and the practical extinction of the Maori in New Zealand are conspicuous examples of this kind of change in the recent past. As has been noted previously, the white race seems to be precluded from living permanently and working efficiently in the tropics; but there is in progress a competition in the equatorial lands, between the coloured races themselves, similar to that which has taken place between whites and aborigines in the middle latitudes. As a tropical labourer the Chinese coolie is everywhere accorded the palm for endurance and efficiency; East Indians, Japanese, Javanese, Filipinos, Polynesians, and Malays are all rated lower, though the relative standing may not be of the order here set down. The many negro tribes in Africa and the introduced, mixed negro stocks now settled elsewhere vary greatly in their willingness and competence to undertake sustained physical toil in the tropical areas, but negroes may, perhaps, in general, be classed next after the Chinese coolies as unskilled labourers. Hence it is just as expectable that the superior groups among the coloured races should displace those less potent as that the white man in the temperate lands should oust the Indian and Maori. In Hawaii this is essentially what has already occurred.

The Japanese and Chinese fill the places and own land formerly occupied by native Hawaiians.[1]

The natives of the Philippines are in some degree experiencing similar competition with Chinese and Japanese immigrants; it is felt in California, and has given rise to the "White Australia" policy. Biologically the Chinese are more formidable than the other coloured races, for, while the Japanese do not do so well in the more extreme tropical locations, and the negro languishes in the far north, the Chinaman flourishes under the equatorial sun and seems also to profit by that stimulus which the white man derives from the variable extremes of the west-wind climate of the Temperate Zones. Indeed, Nicolai,[2] in urging the folly of the Great War to a German audience in the first flush of the German successes, is at pains to show that a struggle-for-existence war must be a war of extermination and as such should be directed against the Mongolian, whom he regards as a real peril because of his ability to work and save under every sky. Whether the Chinese can assimilate the mechanistic features of Western civilization, as completely and rapidly as the Japanese have, remains to be seen; if so the conquest of the tropics may well be left to them, and this is, in fact, one possible solution of the problem.

[1] W. W. Goodale, "The Hawaiian as an Unskilled Laborer," *Journal of Race Development*, Vol. IV, pp. 416-437, 1915. A. F. Griffiths, "Japanese Race Question in Hawaii." Same *Journal*, Vol. VI, pp. 422-440, 1916. Page 435: Between 1887-1894, 1238 Japanese were born in Hawaii; between 1895-1914, 42,599; all years inclusive.

[2] G. F. Nicolai, "The Biology of War," pp. 84-89, see also p. 150, New York, 1918.

A Chinese conquest of all the tropics, would, to say the least, scarcely be relished by the white race; and in any event need to be long deferred. Meanwhile, for good or ill, practically all the tropical regions are under the political domination of European stocks, and it is demanded by Western civilization that a progressively increasing volume of tropical raw materials be made available in exchange for the products of the temperate lands. There are, no doubt, many persons of considerable intelligence who could not be brought to accept any doctrine of world economy that was based on restriction in numbers of the population, if it were proposed to make the restrictive measures apply to their own nationals.[1] It is, on the other hand, quite likely that a majority of those who fear race suicide at home will be entirely in accord with the idea that a Chinese, Japanese, East Indian, Barbadian, or Porto Rican congested-population type of occupation of all the tropical lands by coloured peoples would be a most deplorable circumstance; both for the white race and the world at large. In regard to the effect of occupation merely, by the coloured races, on the welfare of the world at large, leaders among the coloured peoples might con-

[1] It is worthy of note here that the author of the phrase, "race suicide," E. A. Ross, Professor of Sociology in the University of Wisconsin, is now opposed to an increase in the birth-rate. He is reported to have said, Oct. 6, 1921, in the course of an address to a student audience, "Twenty years ago when I coined that grossly misused phrase, 'race suicide,' I believed in large families; today with changed conditions and years of deeper study of the subject I have changed my mind."

Very shortly after that, Oct. 14, 1921, Baron Bertrand Dawson, physician in ordinary to King George, was endorsing "birth-control" before the Church Congress held at Birmingham, England.

ceivably have a different opinion than the whites; but even the coloured leaders could probably be convinced that, whether the white or the dark races were dominant, it would be far better that all the living humans of a generation exist in comfort than in squalor; hence that all measures tending to improve the standard of living and to prevent the encumbrance of any given region with undue numbers should be approved.

If it is admitted to be undesirable, from the point of view that mankind as a whole is heir to all the earth, that the present condition of overpopulation of some tropical areas be permitted to extend to tropical regions generally, then one of the disagreeable alternatives, proposed in an earlier paragraph, while it is found to be a possible solution, is also found to be one that should be negatived. The other alternative is to secure in some way the labour of the tropical native, while at the same time his group is prevented from so greatly increasing its numbers as to press on subsistence. This, too, was nominated a disagreeable alternative because, in the past, at least, every measure designed to obtain their labour has involved exploiting the natives by one expedient or the other, ranging from the most cruel forms of slavery to imposition of a mild, indirect taxation. Whether, once an enlightened understanding of the problem is attained, the natives can be induced to undertake the arduous toil involved in tropical development, without recourse to compulsion of one kind or another and with benefit both to themselves and the world community is, it becomes clear, the essential question of constructive tropical conquest. For if Western society can not tolerate the first disagreeable alternative

of an occupation of the equatorial regions by coloured races, with numbers everywhere up to the limit of mere subsistence, no more ought enlightened opinion to support any method of acquisition of tropical raw materials involving continued recourse to compulsion of native labour.

It is a fair enough premise, romantic idealists to the contrary notwithstanding, that the tropical native ought not be allowed to continue in occupation of lands from which he gets no further benefit than a mere animal existence, while using his surplus energy and leisure in barbaric practices, as has been, for example, the case with the Haitian negroes. It is true that Western society tolerates a number of drones, who, through inheritance, have unearned incomes; but the whole number of those persons constitutes only a small fraction of the total population. Larger and larger percentages of such incomes, moreover, and, indeed, of the original legacies are being appropriated, through taxation, for the public benefit. The community also exercises a right of eminent domain in regard to all real property held by individuals. Precisely the same attitude may rightfully be taken in respect to the aborigines of the tropical regions. Thus, if transportation facilities in the back-country districts of the tropics are improved, if the fever-haunted areas are made salubrious by application of Western discoveries in medical science, if establishment of an effective police force gives safety from tribal and slave raids, it is only proper that the natives who enjoy the actual or prospective (but not putative) benefits of these improvements should be made to contribute a just share of their cost, even though the changed conditions would never have resulted except for

alien intervention. But individuals among the natives should also receive adequate compensation for the labour they provide in furthering these public enterprises. Even more certainly should the natives get adequate recompense for their toil in behalf of foreign planters and concessionaires who undertake the development of the resources of the various tropical regions for private profit. The geographical principle urged in these pages for the rest of the world should be made to apply to the tropics as well. In other words, mankind generally will gain most if the tropics as well as other regions can be developed so that each tropical area will yield a maximum of the commodities it is best fitted to produce and its inhabitants receive therefor, in quantity to constitute a fair exchange, the goods most effectively grown or contrived elsewhere. The temperate-land peoples should not expect to enjoy tropical resources by exploiting the negroes, the yellow race, or the Indians as cheap labourers.

But while statement of the principle is simple enough, securing its achievement is another matter. The political leaders of the advanced nations are by no means all convinced that their countries will thrive most under a free-trade policy, and by each nation helping the others to attain a maximum of efficient production. The practical difficulties that stand in the way of making this concept of world relations to apply, further, to the lands and the folk of the tropical regions are even greater. Programmes for tropical development as formulated by the peoples of the temperate lands have seldom been designed to include, as part of the project, measures to raise the standard of living, increase the material comfort, and to enlighten the

natives of the equatorial regions. But the conquest of the tropics can only be achieved by making these items prime objectives of the campaign, otherwise it will prove difficult, on the one hand, to avoid the menace of over-population, and, on the other, the necessity of exterminating the native peoples. If the natives of the tropics can not be taught a surplus economy, they need to be encouraged to become consumers of more varied and larger quantities of goods, so as to create the reciprocal demand for the manufactured products of the temperate lands. And the obstacles in the way of rational development are made more formidable by the existing and historic relationships between the northern and equatorial peoples.

The major portions of the equatorial regions of South America and Central America are the domain of independent nationalities, made up predominantly of white stock; as is the case also of Cuba. Formosa is the possession of the Japanese. China, Siam, Liberia, and Abyssinia are independent states ruled by coloured peoples, as were also Haiti and San Domingo until the recent American occupation. With unimportant exceptions, all the rest of the tropical areas are under the political control of the European nationalities and of the United States, white peoples. Thus the white race dominates by far the greater part of the equatorial lands; regions in which individual members of the white race can not labour effectively.

The first incident, usually, of political control by the whites has been assumption of power in regard to the disposition of lands within the territories involved. The new government may, in asserting this authority, have merely

taken over the prerogatives of a native ruler, who is then superseded. If, on the other hand, the country was one of few fixed settlements it has been customary to take over all unoccupied land as state domain; permitting the natives the while to remain in possession, with clear title, of all lands actually occupied by them. Two mistakes have, however, commonly been made in later negotiations with natives concerning title to land. One was to regard the individual native as the owner of a given plot, whereas, under native custom, the particular person enjoyed only the right of occupation, ownership actually being vested in the tribe or in an enlarged form of the family. Under their own institutions the natives commonly regarded land as having, like air and water, the nature of free goods. The individual, therefore, could have neither the power nor the right to dispose of land according to his personal will. The second mistake was like the first, in that the invaders assumed that it was within the power of a chieftain to barter away the land of a group of natives; an act that neither was, nor could be, sanctioned by the tribe. Thus established native custom was nullified and a native system of property rights, which should have been maintained while progress was being made in other directions, was set aside. Many evils followed in the train of this change. The individual was easily parted from his holdings by shrewder members of his own group or by aliens; the chiefs surrendered valuable tribal holdings for trinkets, the natives themselves were led, first to indulge in extravagances, and then to sink into debt slavery. While this has been, in general, the course of events in the separation of the natives from their lands, other methods em-

ployed have been to declare forfeit the lands of rebellious tribes and deportation of natives to designated and restricted reservations.

Dispossession of natives from land actually occupied for agriculture, or other regular and well-defined pursuits, ought to be discouraged by whatever means it may be accomplished. On the other hand, it is not necessary to concede to the native wide stretches of unoccupied land through which he occasionally roams in search of fruit or game, if this land can be more intensively utilized. While yielding only wild products such land should be left to the native to harvest, in so far as he is willing or capable of accomplishing this; but if wanted for a higher use the open lands should be available for alien occupation. But if the natives are thus deprived of a resource they should be compensated therefor by adequate provision of another sort. It should be said, however, that the transfer of native holdings is now very closely supervised by the European colonial powers generally and is subject to many restrictions designed to protect native rights. The prosperity and contentment of the Javanese peasantry is attributed [1] in large part to the fact that the natives are absolutely prohibited from selling their lands to a European, or even to an Asiatic foreigner, and that in being insistent on this particular safeguard Dutch policy has differed radically from that of other nations.

In order that the reader may be able to judge intelligently whether the particular proposals herein urged promise a solution of some of the immediate difficulties of the land and labour problem of the tropics, it is neces-

[1] A. Ireland, "The Far Eastern Tropics," p. 183, Boston, 1905.

sary to precede the suggestions to be made by a statement of the historical order of tropical development under European influence, supervision, and domination.[1]

As in the case of the modern efforts to develop the tropical regions, similar attempts in ancient times were motivated primarily by a desire for commercial gain. Settlement of new areas by the important peoples of the past was, in fact, accomplished almost altogether through the establishment of trading posts. But the ancient colonial settlements, however broadened in their scope and more important they may in time have become, had, until the Period of the Discoveries, few of the aspects of the modern tropical colony; because the tropical colonies of the ancients tended to become politically independent. Moreover, the modern native and labour question was not one of their problems. The lack of swift communication in those times, and the inability of the home government, even if of a comparatively strong state, to concentrate its energy quickly and effectively at a variety of places favoured rapid emergence of separate political units. The Roman colonization is an exception to this generalization because the Romans built the roads that made speedy communication between Rome and the various parts of the empire possible.

As the tropical settlers of ancient times were themselves able to live and work in the areas where they were newcomers and were usually unconscious of racial antipathies,

[1] See A. G. Keller, "Colonization," Boston, 1908, for full treatment of the subject of tropical settlement in its historical aspects, with an extensive bibliography. Much of what follows is derived from Keller's volume.

as they are now known, there was no basis for a native question. The ancient colonizers, accordingly, either displaced the natives and took their lands, as the Europeans did with the Indians in North America, or, more commonly, they intermarried with the original inhabitants. If, indeed, the immigrants held themselves aloof from social and marital relations with the barbarians it was because of a feeling of superior culture, rather than that of racial intolerance. No need was felt for converting or uplifting the less advanced peoples; and, except as their customs interfered with the ends sought by the colonizers, the native peoples were indifferently left to their own devices. In other words, the ancient tropical colony was, in accordance with Keller's (*op. cit. supra*) classification, more in the nature of a *farm* colony than of the *plantation* colony that prevails today. Movement of peoples then centred about the Mediterranean, and, whether the site was on the north or south shore of that sea, it held neither the insuperable difficulty of acclimatization nor the problem of compelling native labour for the Phœnician, Greek, Roman, or Venetian trader or settler. It was like the occupation of North America, Argentina, New Zealand, and South Australia by Europeans. In the American South of Colonial times, a region where a shading off into the conditions of the tropics occurs, the plantation type of colony, as opposed to the farm type, did, indeed, become established, and accompanying it, quite normally, the slave institution.

Early emigration of the Chinese, both to temperate and to tropical lands, is of interest because its aspects may yet have a bearing on the modern problem of Chinese immi-

gration into both kinds of areas. Through governmental activities and military conquest the Chinese extended their rule widely into the steppe lands adjacent to their country. Nevertheless these areas were never much favoured by immigrant Chinese settlers. Urged by the pressure of numbers to become emigrants the Chinese apparently much preferred to move into more tropical lands, even though movement in that direction was opposed by the home government. In spite of this political difficulty Chinese early made their way into the Philippines, Formosa, the Malay Archipelago, and, overland, into Siam, Cambodia, and India, and were uniformly successful in trade, and in cultivation of the land, wherever they settled. The Chinese immigrants were, in other words, able to work under the most difficult tropical climatic conditions, they intermarried with the natives, and, while as a group Chinese colonists displayed a tendency to return to their ancestral home after accumulating a fortune, many Chinese settlers nevertheless became permanent residents of the outlands. Hence it would appear that, if the Chinese Government had displayed the same determination to maintain political control over the tropical settlements of its nationals as it did over those immigrants who were urged, or sent, into the steppe lands, and had development of the art of navigation continued progressively with the Chinese, there might have been built up, at an early date, a Chinese Empire encircling the whole earth as a wide tropical girdle. While it is as unlikely now, as in the past, that the Chinese will acquire political control of the whole Tropical Zone, it is by no means certain that they will not in time become the dominant

racial element over wide areas of tropical lands; for the importation of Chinese labourers, on a progressively larger scale, may prove to be the only means by which many of the sparsely settled tropical regions can be brought under cultivation.

The problem of the conquest of the tropics in its modern phases may therefore be considered to have been non-existent in ancient times. Although the Mediterranean peoples and the Chinese, like the modern Europeans, were similarly motivated by desire for commercial gain in entering new regions, the ancients were competent in both instances to become farm settlers in the new lands, and there was almost complete absence, anciently, of attempt at political domination of the colonies by the home group. Only as the search for the sea route to India, by the Portuguese in the Discoveries Period, proceeded, and eventually succeeded, did the modern problems of tropical development make their appearance: the questions of political dominance, of plantation culture, and of forced labour. Moreover it was at this time also that interest in the tropics began to centre more exclusively on their agricultural products, at first particularly spices; and agricultural products, though of a much wider range in kind, have continued ever since to be the main lure of the tropics.

The Portuguese and Spaniards were the first European peoples to achieve national cohesion in the sense defined in earlier chapters of this volume. As the result of a long period of struggle, the Iberian groups had succeeded, in the last part of the fifteenth century, in finally expelling the Moors from the homeland and, in so doing, had at-

tained solidarity of place and people. Any enterprise, therefore, that these groups might, in the future, undertake was almost sure to be nationally organized—as referred to colonial expansion to be in the nature of a conquest, followed by dominion exercised from the centre of the home government.

Sailing down the African coast, the Portuguese occupied the several groups of islands lying off those shores in rapid succession, and as early as 1441 were bringing back cargoes of slaves from continental Africa. These slaves were sought for use on the estates of south Portugal; a region that had been depleted of its labour supply through the expulsion of the thrifty Moorish agricultural population. Arriving in India by the sea route, the Portuguese encountered a civilization in some respects superior to their own, but had to deal, in a military way, only with petty rajahs who could offer no effective resistance to the strangers, and who, in fact, welcomed them as merchants. No difficulty, accordingly, was interposed to the immediate establishment of a trading post in India and a cargo of pepper, cinnamon, and other local products was secured for the return trip.

The Phœnicians first inculcated and zealously upheld the idea of monopoly in foreign commerce; the Venetians, only just previously to the Portuguese discoveries, had become rich and powerful by exercise of such monopoly, and it was the ambition of the Portuguese to succeed to the Venetians. The Portuguese further entertained the notion of maintaining the monopoly, not only by mastery of the seas, but also by conquest of the areas from which the coveted products were derived. The Portuguese, in

other words, sought a tropical empire and the closed door; and it is significant that the problem of the closed door, with reference to tropical possessions and concessions, is not now completely solved. The Portuguese, accordingly, under the leadership of Albuquerque, very shortly made themselves complete masters of all India and of all the East as well; for the native rulers of Siam, Java, and of China were glad to come to terms with the conquerors.

The Portuguese conquerors were bred, at least in part of their number, under a subtropical sun, they intermarried from the first with the native women, they were proverbially temperate, too, in their habits; yet they succumbed in large proportion to the climate of India. Moreover those Portuguese who survived the conditions and became permanent residents in the East very shortly refrained from any physical effort. All manual labour was performed by slaves; to engage in toil of any kind meant complete loss of social standing for both men and women of Portuguese extraction. The government the Portuguese introduced was no more than organized robbery; trade proceeded on the basis of intimidation and terrorism; the conquerors became parasites on the native agricultural and industrial population. The immediate profits of the extortion practised were great, but only a few shared in the gains; primarily the King of Portugal, who was the head of the national commercial organization through which trade with the East was conducted. Ultimately, indeed, the Portuguese as a nation were undone through the corruption engendered by the distribution of these colonial profits.

Under the circumstances it is not surprising that the

Portuguese were unable to found permanent colonies on the large scale of their enterprise of empire. Not only did they fail to establish themselves; they also depopulated important areas of natives by their religious intolerance and consequent regulations and persecutions. In Africa the situation was even worse than in the East, for the African settlements did not produce the coveted spices, hence amounted to little more than slave stations from which a supply of black labour was obtained by force, for shipment particularly to Brazil, but also for use at home.

In the East the Portuguese impinged upon an old civilization, and on densely populated lands, and commandeered the products both of the indigenous culture and of the intensive utilization of the natural resources. In Africa they enslaved and deported the population itself. In the New World they encountered a third and different set of conditions. The American Indians had no organizations comparable to those controlled by the native rulers of India. It was, therefore, impossible for the Portuguese in Brazil to make demands on native rulers and so bring about increased production of the commodities especially desired in Europe. Moreover, with the exception of the dyewood, the indigenous natural growths of Brazil did not afford exportable materials. The new land in the West, therefore, was held of little account in comparison to India and was used as a place of exile for convicts and women of ill repute. The voluntary immigration of Portuguese Jews, it is true, added a better element to the population of Brazil in a later period. Intermarriage with the natives, however, began at an early date. The

admixture of these rather incongruous elements eventually resulted in the establishment of a nondescript, resident population in considerable numbers in Brazil. The Jews introduced the sugar cane, which flourished and yielded a good profit from the outset. The rapid development of both sugar and tobacco plantations attracted further desirable immigration.

But the Portuguese if able here, as in India, better to withstand the tropical climate than other Europeans would have, nevertheless could not develop Brazil as a farm colony. Infant mortality at first was very high. The need for more labourers early led to the enslavement of the Indian population, although the Jesuits opposed this on technical, religious grounds rather than as a protest against slavery as an institution. The American Indians, however, were both physically and temperamentally unfitted to become agricultural slaves. They preferred death to submission to toil, to exposure to strange epidemic diseases, and to the servile station. Nevertheless, because they were available immediately at hand, hence cheap, the Indians were compelled to work, and the planters finally used drastic measures to bring about a termination of the resistance of the Jesuits to this enslavement of their red charges. Slave labour, however, is proverbially inefficient; that performed by the Indians in Brazil was exceptionally so. At a very early date, therefore, negroes were imported into Brazil from the Guinea coast of Africa. As the supply of Indian labour declined and the great superiority of the black men as plantation workers became manifest, negroes were brought in so large numbers that by 1585 negro slaves constituted 14,000 of a total

population of 57,000 in the Brazil settlement. Between 1759 and 1803 some 642,000 negroes were shipped to Brazil, but not more than two thirds of this number, probably, survived to work on the plantations.

The Spanish development of the West Indies proceeded in essentially similar fashion to that of the Portuguese in Brazil. The docile aborigines of Cuba and Haiti were almost immediately enslaved by the Spaniards for work in the mines and on the plantations, and so brutally were the Indians treated that hundreds of them committed suicide. The supply of native labourers accordingly began to fail at a very early date and many of the Spanish settlers lacking men to work the plantations, found it more profitable to follow Pizarro into Peru. To induce the Spanish adventurers to remain in the islands their home government gave them permission to import negro slaves from Africa, and thus was founded the negro population which now predominates in all the West Indies except Cuba. The Spaniards, like the Portuguese, had a large contempt for agriculture, industry, and trade, especially that of a petty sort. In view of their Mediterranean origins, descendants of both the Spaniards and Portuguese might have become acclimated, in at least the border-tropical and upland areas of their American possessions, in the centuries that have elapsed since the Discovery, and have developed those lands into colonies and nations of the farm type. But the settlers themselves refused persistently to engage in manual labour; and failing in this they could not become truly rooted in the soil.

Magellan discovered the Philippines in 1521, but found them unattractive, commercially, because, like the West

Indies, the population of the Pacific archipelago was uncivilized, and the islands themselves unproductive of spices or precious metals. Hence no systematic attempt was made to conquer the Philippines until 1564, and the effort then was directed rather to religious conversion than to exploitation. As there was no pressing demand in the Philippines for native labour, either in mines or on plantations, the effect of the Spanish conquest was much happier than in America. It is true that the Chinese who, as traders, had visited the islands before their discovery by the Spaniards, and who came later as settlers, were cordially hated, and in 1639 were provoked into an uprising in which some 22,000 are said to have perished during five months of fighting. But the Filipinos, and even the Chinese-Filipino half-breeds, were parties to the Spanish hatred of the Chinese, which had its origin in jealousy of the success of the Chinese in business pursuits, and is today as bitter as it was centuries ago. There was, however, little or no Spanish emigration to the Philippines and, although the Chinese later increased in numbers, the population of the islands has remained very predominantly Malayan. Sugar, Manila hemp, and tobacco were at an early date cultivated for exportation, but only on a small scale, and mainly under the direction of the Friars. The Spanish establishments in the Philippines were essentially missionary-religious. The Fathers taught the natives to till the soil, fostered industry to a slight extent, and provided the simple education they judged suitable for the inhabitants.

Yet the rule of the clergy was not without its drawbacks. They held vast lands and they levied various kinds of head

and licence taxes, increased in later years by governmental impositions. While the actual sum of these taxes was not large, the amounts collected were nevertheless high in proportion to the wage received by native labour, five to ten cents a day. Having to contend with both clerical and governmental impositions, the Filipinos were often involved in a life-long, fruitless attempt to meet their obligations. The struggle to pay the taxes demanded, coupled with the repression of all attempts at significant industrial progress (it took one proprietor six years to get permission to build a tiny railroad and to pass the materials for it through the custom-house) kept the Philippines in a very backward state of development up to the time of the American occupation.

Alliteratively expressed, the motives of the Portuguese and Spaniards in tropical colonization were three—conquest, conversion (religious), and commerce. The Dutch, who succeeded the Portuguese in India and the islands of the East, had, as their original and sole purpose, commercial advantage. The Dutch, accordingly, made conquests only as military compulsion seemed necessary to insure the success of trade; the religious state of the aborigines troubled the Netherlanders but little, if at all. The Dutch attitude, therefore, coincides more nearly than that of their predecessors with the modern view of the relations that should obtain between Western civilization and the tropical peoples. For, while much has been written about the responsibility of the white man to promote the uplift and development of the coloured races, white rule is now motivated primarily by desire to secure protection and extension of trade. The statesmen and governments of the

European nations have only secondary interest in the religious propaganda carried on by various church associations among the tropical peoples. Nor do they show any greater concern in respect of other unofficial projects having for their purpose the improvement of the educational or industrial status of the native occupants of the tropical areas over which they exercise political control.

The overweening pride of the Portuguese, in conjunction with their early success in the India trade, and the ruinous prosperity resulting from this success, led them to forbid the exportation of Oriental goods from Portugal in Portuguese ships. The enaction of this curious, and economically unwise, regulation was prompted by a double motive. In the first place it was conceived that through its operation all other nations would be forced to come to Lisbon for Oriental commodities. Thus not only would Lisbon be made a busy entrepôt, but also national vanity would be much gratified. The other notion was that by making Lisbon a free market for the products of the East all incentive for attempting the voyage to India would be removed.

It was but natural that the Dutch, who had, meanwhile, developed into an energetic, seafaring people, should under these circumstances, quickly seize upon and make their own the coastwise trade of Europe. Moreover, the rivalry of the Spanish and Portuguese in overseas enterprise made it possible for the Dutch, in their capacity of carriers and distributors, to secure many special concessions from each of the competitors. The Dutch were permitted to take cargoes of northern goods to Brazil and other American points and, in earlier years, individual Dutch sailors had

evidently been employed even on the India voyages. Thus the Dutch got a knowledge of the routes, the manner, and the difficulties of the overseas trade. Because of their later opposition to the Catholic Church, the Dutch were not deterred by religious scruples from infringing on the Papal Iberian monopolies. Accordingly, when religious differences threatened the extinction of their profitable intermediary trade, the Dutch immediately set out to remedy their commercial situation; first by seeking the Northeast Passage and, after this was proved an impractical route, by sailing forth boldly to round the Cape in defiance of the Portuguese, Spaniards, and the Pope.

Java was selected as an objective; the first Dutch expedition to that island was moderately successful, the second enormously so, and thenceforward the expansion of the Dutch East Indian enterprise went on apace. At first there were many rival independent Dutch companies. This entailed competitive buying from native chiefs in the East, and competitive selling in the European market. The Dutch were sufficiently astute to realize very shortly that they were failing to attain the great advantage of diversity-of-conjuncture trade; that is, of an inordinate profit on the exchanges at each end of the route. There was organized, accordingly, but not without some opposition, the monopolistic East India Company, and out of this the West India Company developed later; and for many years these chartered companies were supreme in Dutch overseas commerce and colonization.

As the Dutch sought trade only it might be thought that they would have been able to avoid many of the evils that had attended the régime of their European predeces-

sors in the Orient. Such was not, however, the case. The companies and the state almost immediately came under the control of the same individuals, hence there was little governmental interference with company practices. The elimination of all European rivals from the East India business was the first end sought by the company and in this it was entirely successful; the Portuguese, Spaniards, French, Danes, and English were all expelled from the East within half a century. Meanwhile the company established trading posts at many points and negotiated treaties for peace and trade with the natives.

But long before the European competitors had been completely ousted from the field, or all the round of trading-posts established, the company was experiencing difficulties, typical of tropical exploitation, in its relations with the natives. The East India Company had been organized, and existed, for the purpose of getting spices cheaply. The natives of the Banda Islands, who had agreed to sell all their nutmegs and mace to the Dutch without stipulation as to price, found that the Portuguese and English were willing to pay more than the Dutch offered. The Banda Islanders accordingly loaded their native junks with these products and sold the cargoes to the Portuguese or English. The Dutch governor, on being apprised of this, assembled troops, conquered the Bandas, and then proceeded to depopulate the islands. Some of the Bandas escaped to other islands, some died of hunger in the jungle, the few who survived the period of massacre were compelled to establish habitations along the coast where they would need to live under the immediate supervision of the conquerors and on sites unfitted for cultivation.

In an attempt to restore production the Dutch introduced the plantation system; cultivation under white overseers directing slave labour. The company engaged to furnish the rice on which the slaves were to subsist, but found the arrangement unprofitable. The slaves, consequently, got only sago and fish to eat and, because this was an insufficient diet, many died.

Elsewhere the natives engaged in contraband traffic in cloves, and to suppress this the company uprooted clove trees wherever it was not completely master of the situation. Destruction of their plantings meant privation and want for the natives; their miserable condition then incited rebellion which the Dutch ruthlessly quelled. Native insurrections and their suppression by the use of troops marked company rule in the East through all the eighteenth century, and the fairly civilized, energetic Malayan peoples were, as a result, reduced to a poverty-stricken group of slaves.

The company had, at the outset of its career, no desire to hold land except as small sites were needed for factories; that is, trading-stations. But it was soon realized that a trading-post was not safe except as it was protected by a fort, and that a fort was in constant danger of being attacked unless the native inhabitants of the surrounding district were under subjection. Had the company been content with the quantities of the various commodities freely produced and offered for sale by the natives, and paid fair prices for the goods, there would, of course, have been no need either for the forts or for the conquests. But the monopoly policy of a fixed, low price for each material, and no competition between buyers, led to rebellions.

After the natives had been cowed these uprisings were regularly made the pretext for acquiring land. The native chiefs perhaps received their domains back in fief; that is, under contract to furnish the Dutch with coffee, pepper, sugar, and the like in specified quantities as tribute, "contingents," or at fixed, low prices, "forced deliveries." The chiefs, in turn, oppressed their subjects in an endeavour to meet the terms imposed, yet, even so, often failed in their promises. Where the returns got through the native chiefs proved unsatisfactory the land was sold to individual proprietors and, with the land, the natives living thereon also passed under alien control. The resident natives were then compelled to labour one day in the week for their landlords, also to pay in to the landlord one tenth of all the produce of their private plots, and, further, to furnish all the labour demanded by the company for the construction and upkeep of roads and bridges and for the transportation of its goods.

Chinese were engaged to settle in the East Indies and very shortly became a numerous element of the population. They were very successful, first as cultivators, then, in part of their number, as middlemen and carriers, and eventually as sugar plantation and refinery owners. But because they were so successful the Chinese were subjected to taxation, exploitation, and blackmail, and were eventually so ill-treated that they rebelled and induced many Javanese to join them against the Dutch. The uprising was however, quickly suppressed, and as a punishment 10,000 defenceless Chinese were massacred in Batavia, Java.

At the beginning of the nineteenth century, control of

the Dutch possessions in the East by the East India Company was terminated, and the government became dominant. The English had, meanwhile, so far encroached on the earlier wide empire of the Dutch that only the island of Java remained as a considerable Dutch possession, and they were deprived even of this for a few years. When the Dutch régime in Java was restored there followed a period devoted to experimentation with the reforms introduced by the English, primarily the substitution of a land-tax for the various services previously required of the natives. The Dutch, however, eventually subordinated the English innovations to a policy which involved essentially a return to company practice; that is, the introduction of the, so-called, culture system.

Under the culture system the natives were required to put at the disposal of the government a certain proportion of both their land and their labour. This land and labour were to be utilized to grow crops for which there was an export demand, and the expenses of administration and development were to be paid out of returns got from those crops. The remainder of time and land the natives were to have for growing food crops, primarily rice, and such of the richer cultures as they could manage. Only one fifth, instead of two fifths, as had previously been the rule, of the natives' time was to be required, and the government engaged to bear the losses resulting from crop failures not directly chargeable to the faults of the cultivators.

As proposed, the plan appeared eminently fair, and one well calculated to yield the desired export commodities and revenues, while at the same time to afford the native

relief from oppression. For this reason it acquired a considerable favourable renown. But the system was not administered in accord with its humanitarian provisions. There was no pretence, even, of adhering to the stipulations fixing the amount of the time of the native that might be requisitioned. The land-tax, from which he was supposed to be henceforth exempt, was, in many places, imposed as it had been formerly, and the government evaded shouldering any losses due to crop failures. A mere pittance was paid for the culture crops independently produced by the natives. Even so, only a part of the population came under the system at all; the rest remained altogether subject to the land-tax. This tax was collected by native officials, who extracted all they could get. Native regents acquired land-grants with rights of taxation over the natives living on them and multiplied tenfold the demands which they were, in theory, permitted to make by the government. The cultivator suffered in silence, and it was only as famine, pestilence, and the actual flight of the labourers from the culture districts made evident the real conditions, that the failure of the system, at least in so far as it affected the welfare of the worker, became apparent. Once, however, the evils of the culture system were thoroughly exposed it was gradually superseded by dependence entirely on free labour, which now prevails in all Java. Meanwhile, however, the Dutch national treasury had, in the thirty-five years that the system was in operation, profited to the extent of about two hundred million dollars over and above all expenses.

The sordid nature of the history of the early efforts at tropical development under the guidance of the nations

of western Europe is sufficiently indicated by the preceding paragraphs. To make the account complete by including references to English, French, Scandinavian, German, Belgian, Italian, and American colonial ventures in the Torrid Zone and the specific details relating to each of these enterprises would require a separate volume. The instances reviewed are primarily the earlier attempts, and those in which the governmental and commercial functions were combined. So much of the recital as is here included does, however, present examples varied enough in kind to indicate quite clearly the effects of European contact on the tropical peoples of different degrees of advancement in civilization; and the record is a sorry one in every instance. The administrative and trading functions are completely divorced in most of the tropical colonies under European domination today, and the evils of compulsory native and slave labour, as they formerly existed, have been, in large part, suppressed. But neither has oppression been completely stopped nor has the problem of finding labour for the production of tropical commodities for export been solved in its larger aspects.

Native labour is now theoretically free in all tropical areas. In reality, however, the supply of labour for the production of exportable goods, and for governmental enterprise in development of transportation and communication and public works, still rests on some form of compulsion. In one sense the problem of tropical labour is only a special case of the problem of labour in the densely settled areas of the Temperate Zones; for overpopulation forces the impoverished to accept employment at wages that merely suffice to buy enough food to sustain life. The

Chinese coolies, the Egyptian fellaheen, the negroes of Jamaica, of Barbados, and of Porto Rico, when dispossessed of land, must work if they would live; as must their temperate-land fellow toilers. In regions of the tropics where the native population is sparse and importation of alien labourers is difficult, or where, although the population is dense, life is relatively easy because the natives remain in possession of sufficient land to enable them to satisfy their small wants, all sorts of expedients are devised by Occidental exploiters to compel the services of peoples who can endure continuous and arduous physical effort in the tropical climates.

In Africa, hut and toll and vagrancy taxes that must be paid in money are imposed, and, as money can be had only from the white man, and as the taxes are made so high that the required sums can not be secured in exchange for the ordinary native produce, the negro is obliged to become a day labourer. Where, as in German East Africa, the negroes pleaded employment as carriers as an excuse for not engaging in the more disagreeable agricultural work, a tax was put on every trip made by a carrier. More commonly, however, natives are kept at work by some system of debt slavery. Advances are made to the improvident workers at the time of hiring, and before the debt thus first incurred has been worked out the labourers have become involved for other amounts, and so are forced into permanent dependence. The rubber gatherers of the Amazon are kept at their tasks by this system of debt slavery. Native labour is prevented from evading contracts to work by imposing such punishments as flogging, compulsory labour, and drafting into colonial armies. The British Govern-

ment, until recent years, derived a large part of the revenues needed for administrative expenses in India, Hong Kong, and elsewhere in the East from the monopoly sale of opium, and twice went to war with China because the Chinese wished to stop the sale of the drug in their country. Opium smoking and gambling are encouraged by the British planters who have to deal with Chinese coolie labour because these vices keep the labourers both docile and impoverished, and hence continually available for further services.[1]

These various practices and expedients to compel the necessary labour of the natives in maintaining and extending tropical development do not, however, meet the approval of the generality of informed persons in the temperate lands. As outright slavery was repugnant, probably, to a majority of Europeans at the time when the institution flourished in the south border zones of temperate lands, so now there is a queasiness about the employment of measures which, while they evade legal infraction of the prohibition against slavery, nevertheless affect the occupant peoples of tropical lands in much the same way as if the slave system were practised openly.

Rubber, sugar, oils, spices, and other products from the tropics are wanted in the temperate lands, but it is discom-

[1] On this subject see E. W. La Motte, "The Opium Monopoly," New York, 1920. For a defence of the policy by a British author and insistence that no legislation, repression, etc., can turn the Chinaman from opium smoking, see A. Ireland, "The Far Eastern Tropics," pp. 47-48, Boston, 1905. It is asserted that the use of opium in China was completely suppressed in 1917, but Chinese smugglers from the Japanese-controlled island of Formosa are bringing in the morphine derivative.

forting to think that they are obtained by the oppression of human beings. It has been asserted that to find fault with the labour system of the tropics as it now exists is mere sentimentality; that labour is as much exploited at home as it is in the equatorial regions, and that the condition of labour in the temperate lands does not cause those who object to the coercion of the coloured races to have qualms. But it should be remembered that, however difficult may be the position of certain groups of toilers in the Western industrial nations, those workers in any event are apprised of, and competent mentally to understand, the institutions under which they have their existence. They have also leaders and spokesmen who are alert and aggressive. More than that, individual labourers in the temperate lands must ascribe their status, at least in some degree, to their personal failures in a competition, the terms of which they knew from childhood. To take advantage of the ignorance of the tropical peoples, or of their improvidence, or impoverishment, is not, therefore, in quite the same category as the exploitation of labour in the Western nations. Compulsory labour, furthermore, is at best, inefficient labour, hence, on purely economic grounds, its employment is not an adequate solution of the tropical difficulty.

On the other hand it is not in accordance with the rational geographic concept that each of the regions of the earth should be utilized for the production of those commodities to which its situation and resources best adapt it, that the coloured races should be permitted to teem and multiply in the tropical areas to the exclusion of the development that is demanded by the industrially advanced

northern peoples. In many areas of the tropics undisputed native occupancy would be accompanied by a return to tribal wars, voodooism, cannibalism, and similar savageries. If control and direction by the advanced peoples extends only to provision of orderly government and modern sanitation, crowding to the subsistence limit will result. There does exist a white man's burden; a responsibility for preventing a return to savagery on the one hand, and on the other, over-filling the tropical lands by uncontrolled breeding. In what manner this burden should be shouldered and how the load should be carried is the problem that must be solved. The task has evidently not been well performed in the past; can it be done better in the future?

It is a fair enough assumption that in one guise or another European culture, and the needs and standards of its civilization, will eventually determine and direct the course of all tropical development. The Japanese, it is true, have a place on the programme, but only because they have already adjusted themselves to the European scheme so completely that their national aims and ambitions are now exactly parallel to those of the Western groups. The domination indicated does not necessarily involve complete political control; China, Siam, Liberia, and Abyssinia can remain independent, Great Britain is withdrawing from Egypt, as also she may later from India, and many citizens are convinced that the United States should eventually grant independence to the Filipinos. On the other hand, the United States has recently become politically supreme in Haiti and San Domingo, and has given considerable financial support to Liberia; while Great Bri-

tain assumes mandatory power in Mesopotamia. The vast, undeveloped, natural resources, commercial and industrial potentialities of China are thought to be in immediate prospect of development in accordance with the aims and purposes of the West.

There is nothing in the situation, thus summarized, that is to be deplored, if it may be assumed, further, that the future will witness an increasingly complete understanding that a selfish, national policy, on the part of the Western nations and Japan, in the development of the several tropical areas, can not prevail. As even more far-reaching proposals have already been made, as, for example, that at the Geneva 1920 meeting of the League of Nations for the pooling and apportionment of the raw material resources of all nations, it does not seem too much to expect that the narrow policy of regarding tropical colonies as plantation possessions of single nations, merely, will be completely abandoned. And if Great Britain withdraws from political control of Egypt and India, and the United States from the Philippines, these changes in control will be effected only after enduring systems of law and order have been established in those regions, when modern sanitation and the facilities of modern engineering and transportation have been introduced, and after the natives have been afforded sufficient instruction to enable them to continue and extend such institutions and devices. Western civilization will not tolerate personal violence; it is hostile to outworn and inefficient production, and to ineffective utilization, or complete neglect of natural resources.

If Western civilization erred by insisting too strongly on the sovereign rights of nations, and has suffered inter-

national anarchy in consequence, it has also recognized that the inharmonious relations implied by this phrase are very largely due to the fact that each national group has denied, in some degree, equality of economic opportunity to the alien national in its own lands, and particularly in colonial or dependent possessions. Exclusion policies in tropical regions under the control of a given group are, like protective-tariff legislation at home, attempts to hold economic opportunities in reserve. When it becomes more generally understood that economic opportunities held in reserve, either at home or abroad, can at best eventually benefit only a favoured few within the group, and that, meanwhile, development is retarded at a disproportionate expense to the rest of the group, public sentiment will be more and more in favour of progress, independent of nationality.

Already there is an insistent demand that tropical, colonial enterprise shall not be permitted to yield disproportionately high percentages of profit through the oppression of subject peoples, and particularly under the shelter, and by the connivance, of political domination. As now there is little objection to the investment of American capital in Great Britain, or of British capital in France, so also it may be expected in the future that alien entrepreneurs in the colonial possessions of the several European groups will find an equally cordial welcome, and be not subject to disabling discriminations. Nor can any fault be found with the kind of pressure that is being put on China, for example, to force abandonment by her peoples of ancient prejudices, such as ancestor worship, which results in a vast acreage of fertile land being given over to burying

grounds; or of superstitions that stand in the way of mining enterprise, because despoliation of the earth is an injury to the earth-god essence inherent in the place.[1]

If it be accepted as rational that all nationals of Western origin should compete on equal terms in the development of the several tropical regions, and that the coloured races should be made to abandon customs and institutions that interfere with the fullest utilization of the areas they occupy, it should also be recognized that Western civilization has a larger obligation to the native peoples than that of simply not oppressing them. The natives must be accorded equality of economic opportunity with the alien intruders who are in political control, and with those others who may be introduced by the politically dominant group. In fact the obligation extends beyond this; the natives must also be taught how to take advantage of their opportunity, else they will be deprived of their aboriginal or occupant rights in the soil.

James Bryce [2] has discussed in some detail the various circumstances under which peoples of different cultural origin and status have come into contact, and the results of such contacts. His conclusion is that the granting of equality of economic opportunity, and making provision for the type of education that will enable the lower race to take advantage of this opportunity, will do most to minimize the difficulties of the contact between a culturally advanced and a culturally backward group. The course he advocates has two great merits; one, of creating a respect

[1] On this last see W. F. Collins, "Mineral Enterprise in China."

[2] James Bryce, "The Relations of the Advanced and the Backward Races of Mankind," *the Romanes Lecture*, 1902, p. 37, London, 1902.

for the lower race among the higher one, and, two, of soothing the lower one by the feeling that in all that touches the rights of private life members of the backward group are treated with strict justice. Another student of tropical conditions, Kidd,[1] who also is competent to express an authoritative opinion, asserts, similarly, that the right of equal economic opportunity is the most important single base for the uplift of backward peoples.

As to political activities and social recognition, the problem is different, and many different solutions may ensue in different localities, each one entirely appropriate in its place. The enthusiasm of many liberals for the indiscriminate political emancipation of all subject peoples is misguided. It is not to be wondered at that the liberals should be so vehement to secure to the natives the governmental control which will insure that some, at least, of the natives will enjoy the exploiter's profits that are garnered by those who enjoy political favour, even in the Western nations where every possible legal handicap is interposed to the perversion of government this involves. But the contentions of the liberals are all based on the ungeographic conception that the people, and not the region, is first. Whatever contributes to all-round and effective regional utilization must also aid in the betterment of human conditions. The regional utilization here suggested is not to be confounded with predatory exploitation, or even with the plantation type of mono-culture that has been practised in the tropics.

But if the geographical dictum, that place, in respect of

[1] B. Kidd, "The Elevation of the Tropical Races," *Independent*, Vol. LVII, p. 549, Sept., 1904.

the world's needs, is of superior importance to the particular status of a given people politically and culturally, then the educational programme advocated by an official in the Philippine service, for the natives of those islands, is essentially a disserviceable one. He urged that instruction of the Filipinos should be directed primarily to fitting the natives for political control of their domain, and to an appreciation of Western, or their own, culture. Industrial education, and the agricultural and economic development of the Islands, he regarded as altogether of secondary importance. In so far as the political education of the Filipinos is directed to securing their independence of village oligarchies, it may, of course, be defended, but instruction in politics for that purpose would need to be only a subordinate part of their training, and so conceived would indeed be of direct significance in the promotion of the economic development of the Islands.

The Western nations must undertake, as a first task, the industrial education of the backward tropical peoples. The available evidence indicates that knowledge of a handicraft, or superior skill in agricultural pursuits, more than any other thing, promotes self-respect and develops a sense of responsibility in the tropical worker. A leader in education in India is of the opinion that to train the natives in better agricultural practice will serve, more than any one other measure, to improve economic and social conditions, and aid in the breaking down of the rigid caste system, in the greatest tropical, colonial dominion. A writer [1] on the Mexican labour problem, after pointing out how diffi-

[1] W. A. Joubert, "Problems of the Mexican Peon," *Harper's Magazine*, Vol. 135, p. 269, July, 1917.

cult, if not impossible, it is to inculcate any sense of responsibility in the untutored agricultural peons, asserts that skilled labourers (carpenters, for example) are as independent as American mechanics and seldom ask for an advance in wages covering more than a small part of the job. Jamaican negroes, on the other hand, altogether lack a conception of the dignity of labour. Their chief ambition, consequently, is to acquire sufficient funds to permit enjoyment, for a time at least, of an idle life in town. In overcrowded Porto Rico the *jibaros,* or farm labourers, on the coffee and tobacco plantations received, in 1916, thirty to thirty-five cents for a day's work, those on the sugar estates as much as eighty cents; whereas blacksmiths and carpenters got two dollars per day. The possibility of a much higher standard of living than is ordinarily the lot of native tropical workers is indicated by the wages paid the mechanics; assuming the paltry sums earned by the farm labourers to be a measure of the income necessary for mere subsistence.

In this connection attention may be directed to an evil generally encountered in the thickly populated tropical regions and one that governmental action could readily abate, with widespread good effect. Native loan-sharks charge up to 15 per cent for the use of money and pursue even more devious methods in fleecing their clients than do gentry of the same profession farther north. Suppression of the pernicious activities of the native money-lenders is a problem of particular importance in both Egypt and India.

The factor that, more than any other, prevents the introduction of industrial education, and especially manual

training, on a wider scale in tropical regions of dense population is its cost, both for equipment and teachers. Where the pressure to augment and improve the regional equipment for transportation and to develop public works of all kinds is so great, and where consequently the demand for reliable unskilled labour much exceeds the supply, as is true of many of the tropical areas, it is difficult to secure funds to provide training to make skilled workers; or even, indeed, to get the endorsement of plans to this end from those who control governmental or other purse-strings. But relief in the over-congested districts, as of China, can only come as the Chinese, and other peoples similarly circumstanced, are taught superior agricultural methods. Then the same or greater food production will be possible with less toil, and the employment of the labour, so released, in diversified industrial pursuits, as, for example, the weaving of rugs for export and the development of a mining industry, will provide the money income for a higher standard of living.

Funds for industrial training, with consequent diversification of industry and labour, higher standards of living, increased production of commodities both for home consumption and export, if not immediately in prospect, may nevertheless be available in a not very distant future. As the governmental régimes of tropical areas are stabilized, capital can no longer expect, as it has in the past, to secure inordinate profits from tropical ventures that find their success in predatory exploitation of natural resources and oppressive use of native labour, or both. Tropical enterprise will be subject to regulation and will be taxed to the same degree that similar business is in

the temperate lands. It will in the future be able to bear heavier taxation because the considerable risk of loss of principal, which now handicaps tropical investment, will be decreased in the new order. Where exploitation of natural resources, as of the mineral wealth of China, is involved, it has been suggested that export duties be levied on the commodities secured and on a sliding scale. As demand for such materials is great and the price rises, so also will the duty, and contrariwise. In the case of the products of mechanical industry, as this develops in dependent tropical areas on the basis of a cheaper labour market and the lower standard of living that will, despite considerable amelioration, continue to prevail there, organized labour in the home countries is likely to demand that export duties be charged on the industrial products of colonial origin in order that conditions of production be equalized.

Thus funds will be made available for development of community facilities, for enlarging the equipment for transportation and communication, and for the industrial education of the natives in the tropical regions of dense population. At the same time pressure will be exerted to raise the standard of living among tropical peoples. The tendency to an almost exclusive mono-culture in extensive plantations of sugar, rubber, tobacco, or bananas, as the case may be, will be offset by a wider and more intensive utilization of the land by the natives themselves in a more diversified agricultural production.[1] Develop-

[1] G. E. Young, "Walnut Industry Growing in China," *New York Times*, Sept. 12, 1920. Importations of walnuts from China into the United States amount to over ten million pounds annually, according to United States Department of Commerce report, May, 1920.

ment of transportation facilities will afford this independent native produce a market, and the failure then, in any one year, of the more extensive plantation-culture will not of itself spell disaster to the inhabitants of a tropical region. Diversified agriculture will also provide a more varied fare for the native worker.

The establishment and secure existence of native proprietors should furnish the population generally with an incentive to save, hence to inaugurate widespread acceptance of capital or surplus economy, perhaps the most difficult concept to inculcate in the minds of tropical peoples, with the exception of the Chinese. Even if the majority of tropical peoples can not be induced to attempt capital accumulation, the natives can be taught a much broader consumptive economy than they now practise, that is, to develop a wide variety of wants. A particular expedient that might be used to create new desires for goods would be payment for services in merchandise. Only those persons who have incomes great enough to permit them to gratify every personal taste, and to indulge each luxurious whim, altogether escape the lure involved in occasional payment for services in merchandise instead of in cash. The promise of an automobile, for example, in part payment for certain labour would be a fascinating prospect to a worker among the sophisticated industrial groups: and the subjective appeal of the device is magnified in proportion as a people is untutored and uncultured. In the same way that glass beads formerly purchased ivory and fine pelts, so now showy clothes, phonographs, and "movies" will serve to procure the labour of the tropical native where a money payment might not.

If the workers are paid in cash there should be provided, immediately at hand, attractive and desirable goods for which the money may be exchanged. The opportunity to secure wanted commodities has not always been made available; and if it has, the things commonly offered—liquor, opium, and firearms—were not exactly conducive to raising the standards of native life. If an especially faithful and steady worker, instead of receiving extra money that could only be spent for trifles, were provided with a house far superior to the huts occupied by his fellow-toilers, envy might be a sufficient incentive to induce others to work more steadily in the hope of attaining a like reward. This would be an application of the idea of the "bonus" to tropical conditions.

In the densely populated tropical areas unskilled labour by whites in competition with that of the coloured races has been impossible in the past, not only on account of differences in physical stamina, but also on an economic basis. This is true now, as well, and probably will hold good for a considerable period in the future, because the average standard of existence of the tropical native is so much lower than that now, or formerly, endured by the meanest white. The Portuguese discovered this very early, when, in their occupation of India, they attempted to found farm colonies of whites. Even where land is first being cleared of the forest and jungle, white labour in the field is a feasible programme only when the labour of the coloured races is eliminated from competition with it, by, for example, the pursuance of a White Australia policy. It has been argued, in connection with the problems of Japanese immigration into California, that the

Oriental labourer, working long hours on miserable fare, is in fact much less efficient than the white, working shorter hours, and well nourished according to Western standards, hence that as one white is as effective as two or three Orientals, the white can successfully compete with the Oriental. This may be true of labour in warm temperate or subtropical belts, but it does not apply in the rain-forest areas of the equatorial latitudes. A vivid conception of what manual labour in such climates means can be had by reading Maugham's [1] description of the climate of Liberia.

While enthusiastic about the great natural resources of Liberia and the possibilities the country offers of becoming enormously productive of various tropical products, it is significant that Maugham puts his, entirely frank, chapter on "Climate and Health" at the end of the volume. "At the height of the rainy season . . . many days will often pass during which the sun is entirely obscured . . . in a nerve-shattering, never-ending pall of continuous rain which roars upon the roof night and day until it produces a dull brain-weariness which is not headache but simply nerve torment." The first rainy season in Liberia continues practically unbroken from the first of May nearly through July. Then for a few weeks the sun shines, the heat increases, and, as the earth is still sodden, "the dampness is exceedingly trying, and one seems to be changing one's white clothing all day long." In early August the rains begin once more, in September reach their maximum

[1] R. C. F. Maugham, "The Republic of Liberia," Chap. XII, London and New York, 1920. A daily temperature and rainfall table for the year 1913 is an interesting feature of the book.

for the year, and only in middle October do they slacken again. Then mosquitoes, propagating unchecked in the forest pools, become a veritable pest. By January the dry season is at its height, then the "harmattan" or desert wind blows through all the morning hours, chilly and intensely dry, so much so that eyes and nostrils smart, lips crack, and finger-nails grow brittle. Even the natives, at this time of year, develop pulmonary complaints that often terminate fatally. February has the distinction of being both dry and pleasant. In March the sky again becomes overcast, thunderstorms are frequent; in April they develop almost to the violence of tornadoes, blowing in windows and tearing loose gutters from roofs; by May the rains become continuous.

It should be noted that this account of the Liberian coast climate is by an observer who was at no time of the year under compulsion to engage in manual labour. Had he been obliged to do physical toil in this rain-soaked land his version of its climate might be still more depressing. He would have needed to work on practically every day of the year in temperatures ranging between 80 degrees F. to 90 degrees F. and at the same time to resist the vertical rays of the sun which, according to his own statement, have detrimental effects on Europeans (not properly protected from them) even when the sky is hazy.

The rain-forest regions are admittedly the most difficult for the white men to endure of the tropical climatic variants, and it is probably true that the Liberian coast-lands exhibit an extreme phase of the rain-forest conditions. The tropical jungle lands with more periodic and less interminable rainfall, even in the rainy season, are much better

adapted to occupation by white peoples. It is not impossible that the jungle areas might be developed by immigrants from south European regions, by Spaniards and Portuguese, south Italians and Balkan folk. On the other hand, it is just these Mediterranean groups that have lagged farthest behind in the march of Western civilization and are, therefore, least well fitted to bring the tropics to fruition. Moreover, the jungle lands are already occupied by dense native populations for considerable portions of their extent and require, therefore, not so much new workers as a more complete and better utilization of the human energy already available. The steaming rain-forest regions, which present the most difficult, if not impossible, climatic conditions to the European, are also the regions that are only sparsely peopled by the coloured races; which have the interminable virgin forests, and offer the greatest opportunity for development. When the problem of utilization of the rain-forest lands has been solved it will probably be found that the jungle lands which border them will have been completely subjugated to the world's needs. Accordingly, all proposals looking toward an expansion of man's régime in the rain-forest lands merit especial attention, because whatever can be successfully applied in those most difficult areas of the tropics will also be of service in other tropical regions.

Procurement of the natural products, removal of the tree growth for plantation purposes, cultivation, transportation, and mineral enterprise in the equatorial forests, are all impeded, primarily, by a lack of workers. The resident natives are either unwilling to engage in the necessary toil or their numbers are inadequate for the purpose,

usually both. Hence the common resort to forced labour under governmental compulsion, to debt slavery, to such miserable expedients as hut, salt, and poll taxes, to destruction of the crops or natural growths on which the natives under primitive conditions depended for sustenance, to encouragement of the opium traffic, and to other devices of similar import; all designed to compel the services of the coloured races without rendering an adequate return. These measures are all wrong in principle, and the practices they involve ought to be abandoned as rapidly as possible, not only on ethical grounds but also because, in the main, they do not serve effectively to procure the results desired.

Unskilled labour, almost exclusively, is needed for the development of the sparsely populated, primeval, rain-forest regions of the tropics. Very little could be accomplished under the present conditions in those areas by recourse to agricultural and industrial training even if it were possible to attempt anything of that kind. The immediate solution of the labour problem in the equatorial wet lands is apparently to be found in an extension of the contract system that already has a considerable vogue, but with additional safeguards to the labourer. Where imported, contract labourers are used it should also be a well-defined policy to provide all possible incentives to the coolies to become permanently resident in the region of their labour activities. Among these incentives the particular feature could well be to furnish the coolie with living conditions far superior to those available to his class in the congested population districts of the regions from which he has been transported.

The extension of the practice of importing coolies from China and India, a system that is already developed on a large scale, would serve a number of purposes leading to the rational and enduring regional occupation of the equatorial areas. First of all, the development could be under European direction and superintendence, and so guided as best to satisfy the commercial requirements of the world. In the sparsely peopled African and South American regions, where the coolies could be used to greatest advantage, alien or resident whites are already dominant politically, and the natives are not competent themselves to develop either political or industrial organizations, and have not exhibited any disposition to do so. The whites engaged in supervision of the work would not remain permanently in residence, but would return periodically to the middle latitudes for rest and recuperation, and would thus preserve their health, vitality, and energy.

If instead of making all dispositions looking to the return of the coolie to his native place, after a very short period in the service, as is now done, the emphasis of the arrangement were, on the contrary, put on securing the labourer as a permanent resident in the new field, and, as suggested above, under much better living conditions than he had at home, the conditions of the contract could nevertheless be adjusted so that while they would permit of the systematic culling out of all desirable individuals in the labour force, and establishing these as free labourers in the locality, the undersirables would continue to be deported to their place of origin. The net results of a programme of this kind would be to establish, in time, alien coloured populations in the rain-forest lands, educated to

appreciate a decent and comfortable standard of living, and to the economic opportunities of their new homes, and receiving a wage sufficiently high to permit competent individuals to acquire an economic status above that of the unskilled labourer.

The importation of women, as well as men, and the establishment of normal family life, would be an essential feature of the scheme. Regulations tending to eliminate evil customs and practices could be drawn up and enforced in the new colonies to a degree that would be impossible in the environments from which coolie labourers are secured. Notable progress in freeing Oriental peoples from age-old traditions, that are in many cases a handicap to their economic progress, would be initiated if it should prove feasible to establish a more enlightened social order in the new population centres.

The native population, if unfitted to participate in the development of the country, could be treated politically and socially as were the American Indians in the United States; though perhaps it should be added that more intelligence ought to be exercised in the adjustment of native rights and claims than was displayed in the administration of the affairs of the American Indian.

The great reservoirs of population in China and India are the immediately available sources from which the initial supply of contract labourers could be secured. Of the two, the Chinese are by far the superior group. In the first place, they have the physical endowment that permits them to toil, to endure, and to reproduce, under tropical conditions, in a measure possessed by no other people. Whether this is due to the hard conditions of life in

China, which act to bring about a natural selection of the fit, as argued by Ross[1] (who states that the Japanese found that in Formosa the Chinese lose half their children before they are six months old, also, that of ten children born in China only two grow up, whereas seven out of ten American children reach maturity) or to the natural hardiness of the Chinese people, is perhaps an open question. Yet, as Ross contends, if at birth the yellow and white infants are equal in stamina, the two Chinese who grow up ought to possess greater strength of constitution than the seven whites. Survival of the fit, only, among the Chinese also explains why, despite the high infant mortality, famine deaths, pestilence, war, and natural disasters it is possible for the Chinese, nevertheless, to keep the population of their country up to the limit on numbers fixed by the ultimate quantity of food that can be produced in the various districts of China by Chinese methods of cultivation.

However this may be, the hard conditions of life in their native environment have imposed on the Chinese habits of thrift and frugality, and a willingness to toil unceasingly, not possessed by other tropical workers. Where the Chinese have gone, or been introduced, in Java, in the Philippines, in Hawaii, they have in a very short time secured possession of land, become shop-keepers, and even industrial promoters on a larger scale. These are commendable qualities in prospective settlers of undeveloped tropical lands. That the Chinese have displaced the indolent, and perhaps less efficient, natives in the areas

[1] E. A. Ross, "The Growth of Population," *Birth Control Review*, Vol. IV, No. 3, p. 5, March, 1920.

they have invaded, and are, therefore, cordially hated by the indigenous groups, is to be expected, and ought not to be found a fault, even if the natives had qualities that more endeared them to the Caucasian nationalities than do those of the Chinese. Another characteristic of the Chinese that makes them especially adapted for a programme of colonization in the equatorial rain-forest areas is that they have little interest in, inclination or aptitude for, government. They, more than any other group, would be content that the political control of a region where they lived and worked should be in alien hands. The Chinese could be a nation in a new home without also desiring to constitute themselves a state.

While imported contract labour is already being utilized very extensively in the development of tropical regions, there is no prospect that it will immediately be resorted to on the vast scale contemplated in the foregoing argument. Moreover, the conditions of its employment, now, are quite different from those advocated. Nevertheless it is interesting to contemplate the possibilities of the proposal as applied to a specific area. If Brazil, for example, should make arrangements with the Chinese Government to permit the emigration and expatriation of thousands of Chinese men and women of the coolie class, such immigrants could be established almost immediately in the Amazon basin and set at the task of clearing off the primeval forest, preparatory to the use of the land for rice and rubber plantations. Similarly, the imported Chinese could be used in opening up Brazil's vast mineral resources, and in building the transportation lines that are needed to make these ores available at the coast. It is to be under-

stood, of course, that the Chinese would not be introduced indiscriminately, and as a horde. Each settlement of Chinese coolies would need to be established for a definite purpose and with a definite project in view. As this is the practice now wherever coolie labour under contract is employed, expansion of the system, with the modifications proposed, ought not to occasion any serious difficulties. As development proceeded, larger and larger areas of the primeval forest lands would be cleared, settled, and cultivated by the Chinese workers.

The various colonies could be permitted a large degree of autonomy in the administration of the government of each settlement, but would be excluded from, or restricted in, participation in the state affairs of Brazil. In social matters there would need to be strict segregation of whites and Chinese, but so managed that the difficult situation which exists in the United States between whites and blacks would not be duplicated. There might even be regulation of marriage between Chinese. Thus the savage and Oriental custom of the child-wife could be abolished. Permission to marry might be granted to Chinese males only after each individual applying had satisfied a property qualification. The conditions suggested would serve to restrict the birth-rate, to diminish the size of families, and to insure that the children of the colonists could be brought up in conformity with a decent standard of living. Incidentally, the wholesale emigration necessary might also relieve the congestion of population in China sufficiently to insure freedom from famine in the homeland.

In Africa, especially in the British possessions, first

recourse would undoubtedly be had to the surplus of Indian coolie labour. Greater difficulties would be encountered in establishing Indian colonies in Africa than of Chinese in Brazil, on account of the political and social factors. For, unlike the docile and thrifty Chinese, the Indian groups are politically minded. Equality of economic opportunity, only, would not, probably, satisfy all the aspirations of the Indian colonists, once they became firmly established in their new homes.

Each of the many tropical areas constitutes a separate problem, for each presents a different combination of conditions—geographical, economic and political. And even if these pages could be extended to include discussion of the many regions involved, it would not be possible to present the situation, because the data on which the studies should be based are not available. Competent and unbiassed, regional, geographic surveys of the equatorial lands have not, as yet, been made. In the tropics, as elsewhere, understanding how enduring adjustment of human life to the land may be brought about, awaits the completion of comprehensive geographic studies of the varied regions they comprise. Only as all the conditions of every environment are made known and, being known, are taken into full account, will the human race be able to realize completely its great heritage—all the regions of the earth.

